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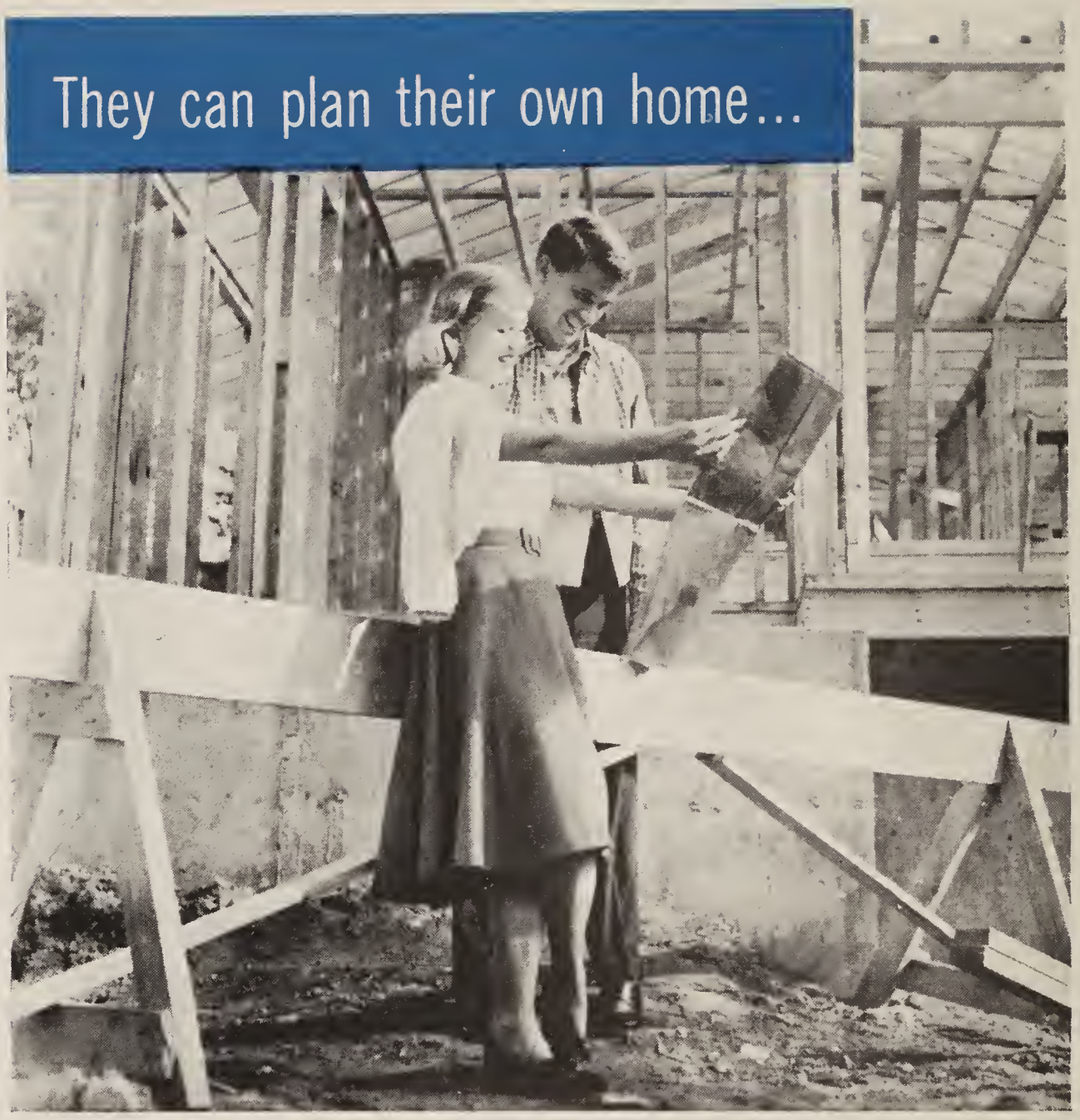

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1. Wolf, Olsen and Tyler: Obstetrics and Gynecology, Vol. 10, Sept., 1957.
2. Behne, D., et al: West. J. Surg., Vol. 64, March, 1956.

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THE COVER

The front cover is taken from the lithograph by J. Woelfyle, after Geyer, and is entitled, "A Medical Discussion of the Eighteenth Century". Although less and less scientific problems are settled by argument alone in this "enlightened era", the problem discussed in this issue remains in this stage of its development. Even if there were a more expedient solution, we doubt that physicians would allow it, for it seems inherent in the medical man to split a hair or haggle a point. However, having heard a colleague once denounce *Webster's Dictionary* to defend his own definition, we venture that the characteristic is only an extension of our recognized conceit. We also note the resemblance of the meeting's chairman to a certain pathology professor who similarly has a predilection to yawn at such gatherings.

L.E.S.

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EDITORIAL

Canada has watched with interest the growth and ramifications of social doctrine in the modern world. The medical profession has watched with Canada the application of some of this social doctrine, particularly in the field of public health.

As students of medicine we take a keen interest in this subject and are devoting this, the second issue of our Journal, to some material about it. We have entitled the issue "Socialized Medicine".

What's in a name? That which we call a rose
By any other name would smell as sweet.

Would it? Does it make any difference whether or not we choose the name National Health Insurance, National Health Plan, Nationalized Medicine, or Socialized Medicine? At first glance it does. Each name has a certain odour, and that which we call National Health Insurance by any other name would not smell quite the same. The odour attached to these terms varies from the staid fragrance of Lavender to the more racy Chanel No. 5. And yet all the names imply a basic similarity in focus of interest.

The term we have chosen, Socialized Medicine, is to indicate generally this focus of interest, not a political or social bias. To approve or to condemn a national health scheme wholeheartedly is very easy, for such a sweeping judgment arises almost invariably from gross ignorance.

On this subject, we hear often that medical care on some sort of national basis either is good or is not good. To prove either one is difficult, for it is extremely perplexing to choose an adequate frame of reference against which to judge the "goodness". To formulate such a proof demands of course balance on a tenuous line like the one separating virtue and vice. On the one hand the formulation may fall into the defect of cold calculated self-interest where health is a cash register and sickness a bill split eighteen million ways. On the other hand, the formulation may fall into the excess of cloudy Utopian verbiage where cliche and claptrap reign or, in short, into fuzzy emotional thinking.

But primarily the formulation demands viewpoint. Is such a plan good for the citizens of a country, good for the medical profession, or just airily good for the country? Or could it be good for all three?

We view the answer to these questions here in Canada with growing attention, for in them lie the future of the medical profession and of our own careers.

So to indicate our area of interest and focus for attention in this issue, we have used the term "Socialized Medicine". For we do agree with Shakespeare when he says:

What's in a name? That which we call a rose
By any other name would smell as sweet.

In this case, we think it would.

J.J.M.

THE GOOD SAMARITANS:

The Journal, plagued for a number of years by an annually increasing debt, was faced early in this twelfth month with extinction. This critical situation developed because of the year-end budget scramble in the drug companies, our main supporters. We had sold only one page of advertising and the loss expected from this dearth would have obviated any further publication. The plea for help was sent out and the companies whose advertisements you see in this issue stopped in their rush to next year's budget to give us enough advertising for our deliverance this December. We sincerely thank them for this support as we do for that which we have received in the past. It is our wish that you look kindly upon our advertisers as we do.

L.E.S.

WITHOUT MARX

If a doctor would ask a layman, and few have, what he thought about "socialized medicine" rather than tell him immediately what he *should* think, he would get answers similar to these:

> "....where life is involved, there should not be any question of the patient's ability to pay the doctor's fee. That's where Medicine is different".
>
> "People with serious disease put off going to the doctor because of the cost and, when they finally have to go, it's too late".
>
> "Doctors charge too damn much. Why! I know a doctor who.....!"

The answers to these common arguments are obvious and it is easy to see that the layman, as usual, doesn't know what he's talking about. In this day when the public ward patient, screened by a number of junior medical wizards, has consultation with the professor himself, a person is foolish to say that medical service is not adequate. We can argue all points except the one in the case of the third quotation which, depending on your morals, may be a legitimate "proposal".

Lulled by our known infallibility, we forget one important factor — our debating skill cannot overcome the ballot box and government legislation. Need only the chessman know of a king mated behind his own pawns by a lowly rook?

Threatened so, the senior physician bellows like the lion who has not had his title disputed in years hoping, we may suppose, that the sight of fury and sound of roar will straightaway dispatch the challenger. A more sensible approach would be to control his emotions, examine the facts, and work with the layman to provide a medical care program suitable to both parties. The outcome is inevitable; our only recourse is to protect our position *under* the plan so that we are not hard done by as were our brothers in the Mother country.

Reading Brown's article on the Scandinavian Health Services, you will be impressed with the fact that a suitable arrangement can be made. However, if our spokesmen, the elders of our Mystery, persist in emotional rejection of any sort of national health scheme, we may very well lose our voice after its election and suffer in the hands of the victor collecting his spoils. Let us join in now and work with the government so that we may receive our due token of gratitude in the form of a sensible and adequate financial return for our medical services later. Need only the virgin learn that a lot of fighting turns sweet seduction into rape?

This issue is designed to give a comprehensive survey of existing "socialized" health plans in an unbiased, factual presentation. Some information on the Ontario situation is thrown in for local flavor. We hope that with some facts in your mind you will be able to approach the public in a new uniform. May you also realize that socialized medicine doesn't have to be the recall of an authoritative father, that it can be, at its best, wonderful. If nothing here affects you positively, at least please stop yelling "pinko" at the mention of the topic — you're making it difficult for those of us who stopped name-calling when we matured to grade 9.

There is one aspect of this business seldom discussed most probably because it is not in our thoughts enough; where the layman cannot give a good reason, mayhap the doctor can. It is entirely possible that we need socialized medicine more than the layman. Maybe it would lift the profession from the mire of squabble, politics, bill collections, and practising with finances always in mind. Perhaps it would elevate our intellect to an academic level away from the quicksand of monetary value systems. Would it not be an advancement of our art to solve the problem of the naturalist in the fifteenth century when "the medical school furnished the only regular training for the naturalist, whilst he found in the medical profession the likeliest means of earning his bread"?

L. E. S.

CANADIAN POLITICAL PARTIES

INTRODUCTION

The following letter was sent to the national secretaries of the three major political parties by Associate Editor, John Mogan. The replies received are printed thereafter in the order of the number of parlimentary seats held. We thank our guests this issue for their attention to this request and for the enlightment contained herein.

L. E. S.

The National Secretary
The Party
Ottawa, Ontario

Dear Sir:

The University of Toronto Medical Journal is at present planning an issue to be devoted to the general subject of Socialized Medicine. The editors of the Journal would like information from the three largest political parties in Canada, the party, the party, and your party.

The type of information we seek is an article of not more than 5,000 words dealing not so much with your party's stand on the political issue of socialized medicine, but rather with the type of National Health plan your party would implement. We are particularly interested in the extent of services available to the citizens of Canada, and the specific manner in which the doctor, general practioner and specialist, would operate his practice under such a plan.

We are asking your permission to publish this article in our undergraduate Medical Journal together with a copy of this letter.

Since the subject is of vital interest to the 800 medical students here at the University of Toronto, we look forward to hearing from you.

Yours truly,

John Mogan, Associate Editor
University of Toronto Medical Journal.

THE PROGRESSIVE CONSERVATIVE PARTY

Dear Mr. Mogan:

Your letter of October 15th to the National Secretary of the Progressive Conservative Party has been brought to my attention.

May I first of all congratulate your magazine for its initiative in sounding out the various political parties in Canada on a matter of such public importance. While I personally do not feel that the term "Socialized Medicine" has any relevance to the Canadian scene, I am aware that it refers to a subject which may well become increasingly talked about in the years ahead.

You mention having also written to the Opposition Parties. They are, of course, in a position to deal more freely with this subject than the Progressive Conservative Party which is now in actual charge of the nation's affairs. Ours is a position of responsibility and everything which we might say must take cognizance of this fact.

It was in this context that I placed before the Special Committee on Estimates of the House of Commons last March the Government's present views regarding Medical Care Insurance. I would like to repeat what I said on that occasion.

"I think we should look at this matter in proper perspective. We have, after all, just embarked on the most ambitious health program in our history and it is still not in force in every part of Canada. Moreover, it is far from complete in that the provinces have not so far taken full advantage of federal hospital insurance proposals. I have in mind the field of outpatient services which has not been fully developed. There is also the problem of home care arrangements to which some of the provinces now seem to be turning their attention".

"There is a further consideration. The Hospital Insurance Program is bound to have a far-reaching effect on all of Canada's health efforts. It is impossible at this early stage to gauge what its full implications may be in the long run. Should this process not be allowed to take its course before consideration is given to embarking on a whole new field of endeavour—a field, moreover, that poses questions of a far more basic nature in our society that does hospital insurance? I believe it should".

This as I say is the government's view at the present time. I would not, of course, rule out further steps in the overall development of Canada's national health programs. Whatever these may be—and I cannot make any specific predictions at the moment—I think it is safe to assume that they will embody much the same principles as those on which our past measures have been based.

First of all, there is the concept of provincial responsibility. Under our system of government in Canada, the provinces have the primary responsibility for health. This has been mirrored in the National Health Grants and in the Hospital Insurance Program both of which are administered at the provincial level.

Secondly, all of our efforts in the field of health have been geared to promote the highest possible quality of care. In the case of the Hospital Insurance Plan, each province has worked out detailed schemes for the fostering of this essential requirement. In fact, these schemes have formed an integral part of the contract between the provinces and the Dominion Government.

Finally, strong emphasis has been given to noninterference with the medical profession. As I told the Canadian Medical Association back in 1958:

"I will never recommend to my colleagues in the Government anything which in any way would interfere with the patient-doctor relationship. This to my mind is one of the most valuable aspects of Canada's health efforts and I for one would do nothing to jeopardize or alter it in any shape or form".

These are the basic principles on which our whole health structure in Canada has been built and which I am sure would be incorporated in any future developments. As far as the medical profession is concerned, I would say that it has nothing to fear from such developments. Indeed, I feel that every new step forward should be of definite assistance to individual practitioners.

In the past, the Canadian medical profession has co-operated wholeheartedly with governments in the promotion of better health care. It exerted strong influence on the development of the hospital insurance program and has been solid in its support. In fact, I would even go so far as to say that the long-run success of the hospital insurance plan both as regards quality of care and reasonable economy of operation is dependent on this support. I am confident that this fortunate state of affairs will continue and that all of us who are directly involved in health matters will go on working together toward the common welfare.

Society is changing rapidly. I believe our health programs must evolve with it. As I see it, the main challenge before the medical profession today is to exert leadership to the end that whatever is done in Canada in the health field will be both in the public interest and in the interest of sound and progressive medical practice.

Yours sincerely,
J. Waldo Monteith.

THE LIBERAL PARTY

Dear Mr. Mogan,

Further to your request of October 15th for an article on the type of National Health plan the Liberal Party of Canada would like to see implemented, I am afraid that at this time we will have to refuse to fulfill this request.

I think you will agree that this is not a case of avoiding the issue, but rather one of protecting the democratic process we must follow in determining policy. As you know, the National Liberal Rally has been scheduled for January 9, 10 and 11, 1961, in Ottawa. At that time, the Party as a whole, representing every constituency and Party group across Canada will meet to consider national problems and formulate policies to cope with them. Until that time—until the membership of the Party as a body decides on this issue—we cannot make a formal statement of just exactly what National Health plan we would like to see in operation in Canada.

I hope you can appreciate the problem we face in turning down your request at this time. However, after that date, it is possible that this request could be met in a specific manner.

Yours sincerely,
James Moore
Executive Assistant

THE CO-OPERATIVE COMMONWEALTH FEDERATION PARTY.

SOCIALIZED MEDICINE

T.W. Grier, M.A.
Assistant CCF National Secretary,
Assistant Executive Secretary of the
National Committee for the New Party.

Its Meaning and Implications:

It would be as well to begin by defining precisely the meaning of this expression, and by clarifying its implications. In the context of our affluent North American society, the phrase *socialized medicine* is an unfortunate one. To far too many people, it conjures up a vision of authoritarian bureaucracy, regimentation of the medical profession, and an austere, cheerless future for the practice of medicine. A student of the British National Health Service writes: "The term 'Socialized Medicine' has been freely applied to the Service: the Service has been indicated in a name. In the result, many American visitors come with the belief that it is run by the Civil Service, as a vast bureaucracy, and that it is practised on detailed regulations from the Minister. It has even been described as 'assembly line serial number medicine'. These things are just not true". (1) And a recent article in *MacLeans Magazine* states that "term 'socialized medicine' annoys the Ministry of Health, the British Medical Association and individual doctors almost equally. It puzzles Britons that in Canada and the United States ignorance of the National Health Service is so widespread that opponents of stat medicine are still able to suggest the British scheme is in some way politically oriented". (2)

If the term is to be used in this series of articles, it is imperative that we cut through the ignorance and misunderstanding surrounding it, and see what it really does imply.

Socialized medicine stands both for a means and for an end. The end, simply, is the attainment of a situation whereby the most superlative medical care is available when necessary to every person in a society — in this case Canada — without, at any stage, consideration as to that person's ability to pay for it.

This end is one with which very few people would quarrel. Consequently, it is with the means implied by socialized medicine that the great mass of objection is taken. With that means we will deal shortly. But first, let it be made perfectly clear that the concept is more than a means, that the end just stipulated is an integral part of it and one which is unattainable in any realistic sense without resort to those means.

The question as to whether a society organized politically — in other words, the state — should concern itself with providing or aiding in the provision of adequate health services for its citizens is one which is continually being raised. Ultimately, the question is one of obligation, both moral and political. "Health of mind and body is so fundamental to the good life that if we believe that men have any personal rights at all as human beings, then they have an absolute moral right to such a measure of good health as society, and society alone, is able to give them". (3) This question of right is by no means peculiar to the philosophy of socialism. It is inextricably bound up with the fundamental principles of philosophic liberalism, as expounded in the writings of its theoreticians Mill, Green and Hobhouse. The belief that the individual has a true moral right to that which promotes harmony and the common good is shared by both political creeds. Given this, and satisfied that the individual and collective health of society is undeniably a vital component of that common good, it devolves upon the student to ascertain the most effective means by which society, acting through the state, can promote such health.

The Means:

In practical terms, socialized medicine means a national health plan, and from now on it will be referred to as such. It is primarily concerned with ensuring that recourse to medical care will be a function of need alone, rather than of other extraneous considerations, in particular the ability to pay.

Here the state has a legitimate role to play. It must be assured that adequate facilities are available. It must see that medical students receive every opportunity to take advantage of the latest in teaching techniques. It must encourage the development of new drugs, and regulate their sale to the public. It must see that there are enough medical practitioners to service the public. Above all, it must ensure that a system of prepayment removes financial ability as a factor in the seeking of medical care.

Which of a number of agencies, then, each operating from different motivations, is most likely efficiently and justly to administer the large-scale financing involved?

The experience of the provincial hospital insurance schemes has indicated that a very large percentage of enrolment must be secured before the plan can operate on anything approaching a sound actuarial basis. Further, if an individual's health is to be treated as a matter of right, then that individual has a corresponding duty to contribute his fair share toward making that right possible. In effect, this amounts to compulsory payments to, and membership in, the prepayment scheme.

What form these prepayments would take is a matter which would obviously be open to intensive discussion. We are simply concerned here with the principle that they be made; the other is a secondary consideration.

To the argument that such a degree of compulsion infringes certain liberties of those who have no desire to participate in the scheme, there is no answer that will satisfy all. That which comes closest is the tenet that the greatest good to the greatest possible number must be the deciding factor. If the vast majority must do without because a very few choose not to cooperate then those few must, in the interests of the common good, be induced or compelled. In the last analysis, there can be no compromise on this point, difficult as it may be for some to stomach.

If the plan must then be virtually compulsory,* the only logical body to administer it would be some combination of federal and provincial government agencies. On the basis of cost alone, it would be unwise to leave the handling of the scheme to private insurance companies. The circumstances of the existing economic structure of our society demand that these organizations maintain at least a reasonable margin of profit over and above their net operations. The inclusion of the profit factor in the expense of the plan's operations would be a wholly unwar-

* It need not be wholly so. Ontario's experience with hospital insurance showed that compulsory payments by employees of firms employing over 15 people, and voluntary payments by employees of firms employing between 7 and 15, combined with voluntary individual membership and federal and provincial grants, sufficed to finance the scheme. This amounted to about 93 per cent of the province's population.

ranted step, and one most decidely not in the interests of those paying to participate. Secondly, the element of public control over the funds would be minimal, and in a scheme of its magnitude, such control is essential.

For this second reason, though not for the first, it would be imprudent to leave the administration of the fund wholly in the hands of a corporation controlled by the medical profession. Here, the doctors would naturally be concerned with exercising the degree of control they felt was necessary, but there would still be no theoretical guarantee of public accountability.

For another reason it seems logical that a government-controlled agency should have the responsibility for administering the scheme. The government is, after all, the people organized in a political framework, and only such a device would enforce the degree of participation sufficient to render the scheme feasible. Only government, on whatever level, has the authority to implement a decision of this nature and government should, therefore, be entrusted with the operation of the scheme.

Most important, government is the only institution constitutionally and legally held responsible to the people. This degree of public accountability must be a fundamental premise for any plan contemplating nation-wide participation. Through government, or a public agency accountable to Parliament, members of the society have a voice in the direction of their affairs, and some real measure of control over the activity of plans such as this which affect their everyday lives. It is, indeed, a basic principle of our constitutional democracy that this be so; there can be no denial of this popular authority.

For these reasons, logical, constitutional and financial, government is the only body able to administer a national health plan. But this is not to imply that government would be the sole determinant of policy relating to that plan. Representatives of the medical profession would have to be fully consulted, and their advice would be the prominent spur to the implementation of medical policy.

What is involved here is a sort of national division of labour. Doctors would be the experts in their own fields, representatives of the people in their delegated role. The former would be the acknowledged authorities in medical matters, the latter in questions relating to the best interests of the public at large. There could be no by-passing such a co-operative effort, and neither group would seriously contemplate it. Too much is at stake in a proposal of the magnitude of a national health plan; group interests must be submerged in the common good. Only the public has the ultimate responsibility for the carrying out of such a program; in the long run it is the public, of which the medical profession itself is an integral part, which must have the final say.

The Medical Profession:

Health is quite properly and quite naturally, in addition to being a concern of society as a whole, the particular business of the medical profession. That being the case, it should be made perfectly clear that a national health plan does not imply undue regulation of matters applying peculiarly to the actual practice of medicine. Only the wildest fancy could conceive of a civil servant instructing a surgeon in the proper removal of an appendix, or in the methods to be applied in a frontal lobotomy. To insist that such will be the inevitable result of the plan is an insult to one's intelligence, as well as a ludicrous misinterpretation of the situation. It is an integral part of the plan's case that the medical profession will have absolute jurisdiction over medical matters. Good medicine will remain good medicine, whether it is practised in a private clinic or in a public ward.

It is apparent that a doctor's chief worries about state medicine are first; that what he considers a rightful income from a taxing and responsible vocation will be threatened, and second; that the relationship between doctor and patient — the reciprocal freedom to treat and to be treated — will be abolished.

To the first point it must be answered that the doctor need not fear that, in deference to the public interest, he will suffer in respect to his income. In a society where the land speculator and the stock broker — both, for good or bad, excellent examples of unproductive labour — can command a high income, the doctor is as deserving of a comfortable living as anyone, if not more so. If the doctor's income is an equitable one now, it will continue to be so. If it was previously out of proportion with medical earnings across the country, chances are that it will find itself falling if too high, and rising if too low. This process of adjustment would be a natural one, governed by a demand which now sought quality rather than economy.

Any system of remuneration agreeable both to the medical profession and to the administrators of a national service must contain a large element of flexibility. But there is nothing inherently impossible about doctors and administrators agreeing on a fee for service basis of payment, closely akin to that now widely in practice between doctor and patient.

True, circumstances would from time to time require that special consideration be given to a certain case, but this would be the exception,

rather than the rule. In the determination of rates, the doctor would exercise a very real degree of influence, he being the best judge of what is involved. Provided there was adequate assurance that both sides were acting on good faith, both in the initial determination of rates and in the subsequent assessment of fees, there seems to be no good reason why such a plan would not be acceptable to all.

The advantage of this system, over one based on a standard fee for patient, would be that those doctors most skilful in their practice and most assiduous in their care would be most likely to receive the highest monetary rewards. It would leave wide scope for the interplay of individual talents and industry. It would remove from discussion of the question any fear that the lazy doctor who kept a merely nominal list of patients would be subject to the same remuneration as the industrious one — a fear which is certainly not an unnatural one.

This particular aspect of a health plan could easily be looked after. What about some of the others? Perhaps another quotation from the article in *MacLeans Magazine* would be appropriate at this point.

Concerning the doctor-patient relationship, the author states: "There is no compulsion, and little regimentation. Everyone 16 and over can choose his own doctor; a doctor can decline a patient. A patient can phone ahead for an appointment and get it; he can call the doctor to his home if necessary. A patient can call in a doctor who practises entirely outside the national health scheme, or he can become a private patient of a doctor who practises both within and without the service....Doctors practise in complete clinical and professional freedom". (4) There was a growing awareness among British doctors that the role of the general practitioner had changed dramatically since the war, not so much as a result of the health service, but because of the tremendous responsibility involved in keeping up-to-date with changing techniques. With a growing population, and with the assumption that all requiring medical care have a right to it, such change cannot be avoided. One cannot deny that at the present in Canada, demands on the services of doctors have been mitigated by ability to pay, as well as by other irrelevant factors. Remove these inhibitions, as part of the moral case, and inevitably the demand for medical care will go up. It is not simply a question of the public taking advantage of so-called "free" services; it is to a large extent that those with hitherto untreated ailments have at last been afforded the opportunity to have them attended to.

Obviously, this aspect of the plan will affect the doctor-patient relationship. Though to regret this would only be human, to fight it would be mediaeval. This would not mean, however, that what passed between a doctor and a patient in his office would be in any way altered. The plan, in this context, would not "mean the end of your personal doctor". (5) It is not true that "the Government would insist on knowing many intimate family problems". (6) This, as with the allegation that doctors would be taught their business by bureaucrats, is utterly false. Indeed, the rational mind boggles at such an impertinent suggestion.

What about the circumstances under which various types of doctors would practise? There is nothing in the plan which would prevent the general practitioner and the specialist from operating out of their own offices. True, in Britain, many doctors have found that the group practice clinic is most adaptable to the service there, and to the circumstances of British medical requirements. But, under the method of payments to doctors so briefly mentioned above, the operation of private offices would be an efficient and entirely satisfactory means of handling demand.

It is difficult to perceive any significant change in the existing practice of referring patients to other doctors, of inviting a consultant physician to verify a complex diagnosis, or of treating a patient in hospital. It seems to be a legitimate criticism of the British scheme that once a patient is referred to hospital for treatment, the original doctor loses all jurisdiction over him. There is no necessity for this to be the case, particularly if the physicians involved are not on salary, but still operate on the fee-for-service basis.

The retention of this method of payment, where the doctor is paid out of a central fund rather than by the individual patient, of necessity involves responsibilities on the part of the medical profession. If it can be argued that the public will take advantage of "free" health care, it can, with equal cogency, be maintained that under a nationally-financed scheme, the unscrupulous doctor has an opportunity to line his own pocket at the expense of the public treasury. This aspect of the plan would be subject to the good faith displayed by the medical profession. It is a fragile principle; once betrayed on any significant scale, it would be difficult to restore. It is, however, worth the experiment.

The doctor, then, stands not to lose, but to gain by the institution of a national health program. His professional habits remain strictly his own. The relationship between himself and his patient is only affected to the extent that the application of a moral principle — to which he himself pays allegiance — has bearing upon it. The demands for his services will increase, but his remuneration will be altered proportionally.

He becomes assured of prompt payment on the same basis as before, the only difference that there will be less likelihood of his payments defaulting. The existing system of referral and specialization remains largely unaltered — his personal interest in his patient can continue as long as is necessary. No impersonal authority will cast a jaundiced eye on his reports; his "intimate discussion" with his patients will most assuredly not be the subject of civil service coffee-break gossip. His opportunity to succeed in material terms will remain as before — to the extent that ability and hard work play a role in the achievement of this success, it will be enhanced. And in the eyes of society, the doctor truly becomes a figure to be looked up to — a member of a profession which has realistically taken into account the interests of *all* the public, and who has played a leading role in placing before his fellow citizens the unencumbered means to the finest medical care he can provide.

The Hospitals:

Briefly, what role will the hospitals play in a Canadian health plan? In Britain they are publicly owned, and a criticism often levelled at the British system is that the costs have been such that virtually no funds remain to be allocated for the construction or modernization of hospital facilities. In Canada, it seems certain that this will not be the case. In nine provinces at the present time, and in Quebec very shortly, there are provincial hospital insurance schemes operating with varying degrees of satisfaction and efficiency. These are financed by direct taxation or by direct taxation or by the payment of premiums. They are at least in part financed with the aid of the federal government, and all are to a greater or lesser degree, viable schemes. It is entirely conceivable, in view of the constitutional obstacles to the provision of a wholly federal health plan, that the provinces might combine and co-ordinate payments to their hospital plans with those to their health plan. In any event, the institution of a health scheme would require provincial as well as federal legislation, and the method adopted in each province would be a matter for it to decide. By and large, the provincial hospital insurance programs are working admirably. For the first time in their history, hospitals in Ontario have been relieved of the worries of operating deficits, although they are still responsible for the liquidation of debts incurred in construction. As well, communities requiring additional hospital accommodation have been encouraged by provincial grants to undertake necessary construction.

The net result has been that in a number of provinces, hospital facilities are rapidly becoming adequate for the demand which would be created by the plan. Furthermore, hospitals, to take the example of Ontario, retain full autonomy. There has been and will be no serious consideration given to the placing of hospitals under public ownership. At the very least, it simply is not necessary. That being the case, it would be unwise in the extreme to overload the capacity of the administrative branch of the service by unnecessarily adding to its responsibilities.

Conclusion:

It should be clear by now that the implications of a national health plan far transcend the immediate consequences of any one group in society. What is inevitably involved is a theory of government, a theory which stands on its own logical and moral foundations. There is no denying that there are certain risks inherent in it, as there are in all human relations. If at times this article has seemed to stray from the immediate question, it is because we as a political party feel that to be necessary. We have not attempted here to lay down a comprehensively documented system of health insurance for our society — this can only come as a result of discussion and consultation on a scale only available to and at the disposal of government.

We have attempted, though, to outline the practical ramifications of a fundamental view of society, and the individual's relation to it. We have been talking specifically of the individual's right to the finest in health care; we have, at the same time, been attempting to elucidate a profound social value — judgment. That is, that man is not an automistic member of an impersonal society, but a co-operative creature in almost all respects dependent for his existence on his fellow-man, and in no way able to divorce himself from the actions of others. You may not like to hear this, but look about you, and you will conclude that it is true.

The principles on which a system of national medical care is based, then, are an inescapable part of this conclusion. They follow logically from certain moral values which are everywhere acknowledged, though not always upheld in practice. A national health plan stands on two feet, its own and those of an upright ethical system. The plan is essentially a rational proposition, and it can only be examined rationally. For far too long, superficial emotional considerations have been allowed to occupy a disproportionate position in debates on the subject. They bear little relevance to the basic question at hand. Because they are so easily appealed to, the risk that unworthy motivations can become a significant factor is very great. When this happens, the public good is imperilled.

We have attempted to put our argument rationally, fairly, and with equal consideration for all involved. We ask simply that the reader examine it on a similar basis.

BIBLIOGRAPHY

1. Ross, J.S., The National Health Service in Great Britain, London, Oxford University Press, 1952, p. 377.
2. Hannon, L.F., "How Britain's National Health Service Works" MacLeans Magazine, October 22, 1960.
3. Ross, *op. cit.* p. 16.
4. Hannon, L.F. *op. cit.*
5. From literature circulated during the recent Saskatchewan provincial election, by the Medical Information Centre, Regina.
6. *Ibid.*

BOOK REVIEWS

FIRST CANADIAN SYMPOSIUM ON NON-GONOCOCCAL URETHRITIS AND HUMAN TRICHOMONIASIS: Z. Gallai and L. Sylvestre; published by S. Karger, N.Y., 1960; 434 pages.

This book is a collection of four lectures and numerous papers given at Notre Dame Hospital on September 21 and 22, 1959. The first section deals with these diseases in the male, while the second portion of the book describes their treatment. The third and fourth sections do similarly for the female. Of the forty-five papers, twenty-three are in English, seventeen in French and five in German.

This report is both valuable and useful since it crystallizes the thinking of several groups of researchers and clinicians and of many others regarding the complex problems posed today by non-gonococcal urethritis and human trichomoniasis.

R.B.

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A DOCTOR'S MEMOIRS: A.J. Willinsky; Macmillan of Canada; 183 pages; $4.25.

At first glance, this book would seem to be just another in the series of doctors' biographies that have swamped the market in recent years. It does contain the usual ingredients of success — the hard struggle against poverty, prejudice, and ignorance — but the reader's attention will very quickly be caught by the local-interest that is the mainstay of the book.

Here we have an account of the teaching and practice of medicine in Toronto during a span ranging from the early 1900's to the present. Such activities as ghost-surgery are introduced, along with the lodge doctor, an institution foreshadowing socialized medicine, and a description of the early days of Toronto hospitals, particularly Toronto Western.

Well-known representatives of another era of medical education including Professors McPhedran, Henderson, and Osler, are brought to life by one of their former students. In addition, the glittering world of medicine in London, Edinburgh, and Vienna is sketched aptly; by comparison, the hardships a young Jewish doctor had to endure in building his practice in clique-conscious Toronto make interesting reading.

Although Dr. Willinsky did not succeed in giving his book the spit-and-polish of a professional, he tells his story with the quiet dignity befitting a well-known and established surgeon. For most readers, this will be a fascinating gap to be filled in the complete picture of the beginnings of Canadian medicine.

A.G.

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THE PROFESSION'S POINT OF VIEW - A Report

KEN ADAM, 6T1

THE CANADIAN MEDICAL ASSOCIATION

With the issues of medical care becoming more and more urgent in recent years, it is only natural that the medical profession should become deeply concerned with all aspects of the problem, and such is the case in Canada. Recently the profession has undergone considerable criticism from many who feel that the medical profession is completely hostile to any system of prepaid medical care; so much so indeed, that the organized profession has felt it necessary to clarify their policy officially to prevent misunderstanding. In May of 1959, for example, the Canadian Medical Association established a Committee on Prepaid Medical Care to study all matters pertaining to health insurance and medical service in Canada. One of the first actions of this committee was to formulate a questionnaire addressed to all the doctors in Canada in an attempt to ascertain, first hand, the feelings of the profession towards prepayment, the insurance industry, and government participation. There was a good response to this questionnaire and it was felt that the 10,669 replies (53% of the profession), would give a good cross section of opinion.

The analysis of the results indicated that most of the profession (77%) already participated in medically sponsored prepayment plans and that of these, most (87%) always or usually always accepted payment of the plan as full and final payment for the services rendered. An equal number stated they wanted to continue participation in plans of prepaid medical care, and liked their patients to be covered by doctor-sponsored plans.

As far as commercial indemnity was concerned, the respondants seemed less satisfied, their main complaints being dissatisfaction with the method of payment to the patient by the agency.

Regarding relations with the government, it was generally felt that voluntary methods of prepayment could be extended so that the public would not require a tax supported program, but that if such a program were to be introduced, it should be administered by the profession with government representation on the board. Administration of such a scheme by Departments of Public Health was strongly opposed, as were any payment schemes by capitation or salary. The fee for service was upheld as the ideal method of payment.

Such are the general attitudes of the medical profession as a whole. In June 1960, at the 93rd Annual Meeting of the Canadian Medical Association, the members of the profession undertook to state their position in a more detailed and more official manner. The following is a reprint of their official Statement on Medical Services Insurances:

Statement on Medical Services Insurance: The Canadian Medical Association believes that:

> The highest standard of medical services should be available to every resident of Canada.
>
> Insurance to prepay the costs of medical services should be available to all regardless of age, state of health of financial status.
>
> Certain individuals require assistance to pay medical services insurance costs.
>
> The efforts of organized medicine, governments and all other interested bodies should be co-ordinated towards these ends.
>
> While there are certain aspects of medical services in which tax-supported programs are necessary, a tax-supported comprehensive program compulsory for all, is neither necessary nor desirable.

The Canadian Medical Association will support any program of medical services insurance which adheres to the following principles:

1. That all persons rendering services are legally qualified physicians and surgeons.
2. That every resident of Canada is free to select his doctor and that each doctor is free to choose his patients.
3. That the competence and ability of any doctor is determined only by professional self-government.
4. That within his competence, each physician has the privilege to treat his patients in and out of hospital.
5. That each individual physician is free to select the type and location of his practice.
6. That each patient has the right to have all information pertaining to his medical condition kept confidential except where the public interest is paramount.
7. That the duty of the physician to his individual patient takes precedence over his obligations to any medical services insurance programs.

8. That every resident of Canada, whether a recipient or provider of services, has the right of recourse to the courts in all disputes.
9. That medical services insurance programs do not in any way preclude the private practice of medicine.
10. That medical research, undergraduate and postgraduate teaching are not inhibited by any medical services insurance program.
11. That the administration and finances of medical services insurance programs are completely separate from other programs, and that any board, commission or agency set up to administer any medical services insurance program has fiscal authority and autonomy.
12. That the composite opinion of the appropriate body of the medical profession is considered and the medical profession adequately represented on any board, commission or agency set up to plan, to establish policy or to direct administration for any medical services insurance program.
13. That members of the medical profession, as the providers of medical services, have the right to determine the method of their remuneration.
14. That the amount of remuneration is a matter for negotiation between the physician and his patient, or those acting on their behalf; and, that all medical services programs make provision for periodic or automatic changes in remuneration to reflect changes in economic conditions.

THE ONTARIO MEDICAL ASSOCIATION

Closer to home, the Ontario Medical Association has been busy independent of the national organization, and has set up its own long range committee to study various systems of medical prepayment in an attempt to synthesize from this an "ideal" plan to satisfy the needs of the public and the profession. It is felt by the O.M.A. that medical care is the concern of the profession, and that as such the profession must take the lead in filling deficits in medical care as they arise. Although the association has not yet completed its study, it too has made a statement of its official policy as follows:

Ontario Medical Association Statement of Policy:
The Ontario Medical Association believes that the preservation of basic freedoms and democratic rights of the individual is necessary to insure medical services satisfactory to the people of Ontario.

The maintenance of health by the prevention and/or treatment of disease is the primary concern of the medical profession and of fundamental importance to the citizens of Ontario.

The people of Ontario as recipients of physician's services and members of the medical profession as providers of physician's services have certain rights and responsibilities which must be respected if a satisfactory medical service is to be continued.

The people of Ontario as recipients of physician's services must have the right to determine:
(1) Whether or not they wish to prepay the cost of physician's services
(2) the insuring agency
(3) the comprehensiveness of coverage.

The individual citizen must have the following rights and responsibilities:
(1) freedom of choice of doctor
(2) freedom of choice of hospital within the limits of safety to others
(3) freedom of recourse to the courts in all disputes with whatever party
(4) freedom to choose the method by which he will pay for or prepay his medical care.

The medical profession as the provider of physician's services must have the right and in the public interest, the responsibility to:
(1) ensure that a high standard of medical services is maintained.
(2) have its composite opinion considered by those responsible for legislation in the health field.
(3) refuse to participate in any plan which in its opinion is not conducive to a continuing high standard of medical service.
(4) evaluate the worth of its services and retain the principle of fee for service whenever and wherever possible.
(5) maintain mediation committees to deal with complaints, from whatever source, be they medical, ethical, or economic and respect the recommendations made by these committees.

The individual physician must have the right to:
(1) freedom of choice of location of practice
(2) freedom to accept or reject a patient except in cases of urgency or humanitarianism.
(3) choose whether or not to become a participating physician in any insurance plan
(4) determine his method of remuneration
(5) submit any disputes with whatever party to the courts
(6) treat his patients in and out of hospital within the limits of his competence as judged by his confreres without interference by laymen.

THE PROFESSION'S POINT OF VIEW

This Statement of Policy affirms:

1. That the profession is willing to accept responsibility for the provision of a high standard of medical care for all, regardless of race, creed or economic status;
2. That the people as a whole and as individuals must accept economic responsibility for medical service and
3. That the Ontario Medical Association continues to be in favour of the application of insurance principles to assist the public to meet this responsibility.

ABSTRACT: Palliative Surgery for Advanced Malignancy; *E.H. Ellison:* American Journal of Surgery, Vol. 100, Oct. 1960, pp. 511.

The value of palliative surgery for seemingly incurable malignancy produces lively scientific and moralistic controversy. Eminent surgeons who argue against palliative surgery point out the high mortality and morbidity rate of the procedure. There is also the risk of fulminating overgrowth of residual tumor due to operative interference. Absolute knowledge of extensive and widespread growth with anticipated technical difficulties are reasons enough to decide against operation but one must be cautious in assuming this to be the case. The small chance of spontaneous regression is also a possible argument against palliation.

Those who advocate a liberal approach object to allowing a correctable complication to persist, even in a poor-risk patient, on the grounds that a more useful and possibly more pain-free life could be achieved. The procedure may, in fact, be as simple as cholecystojejunostomy to relieve tormenting jaundice or enteroenterostomy to relieve bowel obstruction. Further, hurried uncertain diagnosis may attribute to cancer what is in reality due to correctable late complications of the original operation.

With either approach to palliative surgery the risk is great and depends not only on the nature of the tumor itself but on other factors as well. Perhaps it is best to determine the operability of a case by preliminary treatment directed toward correcting anemia, reduced blood and plasma volume, malnutrition, dehydration, and electrolyte imbalance. Failure to respond to such therapy is just reason for avoiding what certainly will be a fatal operation. However, in the light of advancing research in the control and perhaps cure of cancer, let us take steps to assure that the greatest possible number of patients will still be on hand to benefit from new knowledge.

ABSTRACT: The Flexure Syndrome; *W.R. Ghent:* Canadian Journal of Surgery, July 1960, Vol. 3, pp. 303-7.

It is believed that "spontaneous" perforations of the cecum previously ascribed to paralytic ileus alone are, in fact, cases of the flexure syndrome. Paralytic ileus allows gas to accumulate throughout the gastro intestinal tract and, as contractility returns from the stomach downwards, the cecum and ascending colon are further distended, decreasing the hope of regaining normal peristalsis. If the colon is fixed to the abdominal wall at either the hepatic or splenic flexure by a peritoneal fold, the angle between the limbs of the colon is progressively decreased to a critical value and complete mechanical obstruction occurs. Cecal perforation takes place at approximately 80 mm. of mercury pressure.

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ABSTRACT: A Method for Estimating Body Surface Area in the Human Child; *F. Falkner:* American Journal of Diseases of Children, Vol. 100, Oct. 1960, pp. 587.

Formulae using height and weight as bases for estimating body surface area are unreliable in infants. The principle of a new development is a room, the walls of which are one plate of an electrical condenser. A high frequency oscillating current is passed through the skin surface of the patient which forms the other plate. The difference in capacitance between the two is directly related to the surface area of the human skin. The calibration has been verified by actual measurement with newer plastic coatings on living children and cadavers.

WHAT HAPPENED IN SASKATCHEWAN?

CLIVE CHAMBERLAIN, 6T1

On December 16, 1959, Premier T. C. Douglas made a radio broadcast and introduced his government's plan to institute by January 1, 1961, a compulsory, province wide, government-controlled medical care program. This move started a blaze of political controversy, the implications of which involve the whole country.

To some, this event heralded greater social justice...to others, the menace of "statism" had thus gained greater reality.

To shed some light on the events in Saskatchewan over the last year or so, we offer a summary of the address given by J.F.C. Anderson to the Banff C.M.A. convention, 1960. Dr. Anderson is a graduate of the University of Toronto medical school, a past president of the C.M.A., and is one of the tree medical members of the Advisory Planning Committee on Medical Care (Government of Saskatchewan).

The following was given by him as a blow by blow description of what transpired between the government and the medical profession of his province from late 1959 to the time of the convention in the summer of 1960.

CURRENT DEVELOPMENTS IN MEDICAL CARE INSURANCE IN SASKATCHEWAN

Premier Douglas announced plans for a complete health care program during a by-election at Birch Hills in 1959. He envisioned a complete health care program, but stated that "the Government had not yet decided on a date to implement the program".

The College (of Physicians and Surgeons, Saskatchewan) asked the Premier for information concerning his statement. In his reply, he stated that it had always been the policy of his Government to provide a complete insurance program, but assured the profession, that when any proposals were to be made, it could be assured of ample opportunity, as well as other groups of making representations, and of consultation.

A resolution was adopted unanimously at the annual meeting of the Saskatchewan profession in October, 1959, in which they declared that medical care has always been readily available to the public regardless of its ability to pay and declared their belief that the standard of medical service to the people would deteriorate under a compulsory, government-controlled, province-wide medical care plan. In order to avoid any misunderstanding of the profession's position in this matter, the College declared their opposition to any plan of compulsory government controlled medical care and declared support of, and the extension of, health and sickness benefits through indemnity and service plans. This stand received the enthusiastic endorsement of all district medical societies in the province.

The profession called for important improvements in health care in a news release in November, 1959. "We called for:—

1. Improvement in the care and facilities for the chronically ill.
2. Improvement in the care and facilities for the mentally ill.
3. Modernization, improvements and expansion of facilities in existing hospitals.
4. Support and extension of voluntary health care plans already well established.

All of these had been previously discussed with the government".

Premier Douglas, without prior notice, introduced precepts for a plan compulsory medical care in a radio talk on December 16, 1959. He announced five principles, and also announced his intention of appointing an Advisory Planning Committee of ten members. The five principles announced by Mr. Douglas were:

1. A prepayment principle to cover a part of the total cost, (approx. one third); a 1% sales tax is likely and a 1/3 contribution from the consolidated revenue funds was forecast. Deterrent fees are also probable.
2. Universal, that is, compulsory coverage.
3. Administration by the Department of Public Health.
4. High quality service.
5. Acceptability to both those providing and receiving the services.

The proposed Advisory Planning Committee was to be composed of:

Three from the general public, appointed and chosen by the government.

Three to be named by the College of Physicians and Surgeons of Saskatchewan.

Three to represent the government, and to be named by the government.

One to be appointed from the College of Medicine, University of Saskatchewan.

The college then made a press release in response to the radio talk. The profession made it clear that it was fully prepared to enter discussions and to assist any government or organization which had a genuine, sincere, and

worthy proposal or problem concerning the health and welfare of their patients. They pointed out that any study must not be confined to a preconceived government plan, that the terms of reference must be wide enough to permit a full and impartial study of all matters pertaining to the health needs, and that any committee must be free to study all types of solution to the situations it encountered. Furthermore the profession deplored the introduction of a matter of such vital importance in the heated atmosphere of an oncoming provincial election. The profession again repeated its opposition to a medical care program for Saskatchewan under government control. A recent poll taken of all physicians in private practice (700) indicates over 95% opposition to a state-controlled compulsory scheme.

The first official communication from the government came December 30th, 1959, in a communication from Mr. Erb (Minister of Health). This consisted of terms of reference, containing comments and instructions to guide committee members in their deliberation and in the preparation of their advisory report to the Minister of Health. There were at least 5 major objections to the terms of reference;

1. The terms were limited to a preconceived plan.
2. Administration was intended to be under the Department of Health.
3. Report to be completed by the year's end (1960) giving insufficient time for any realistic study.
4. The appointment of a committee to sit during an election.
5. The composition and method of appointing the advisory commttee.

There then followed a series of meetings and exchange of letters between Mr. Douglas and Mr. Erb and the profession. As a result of these the profession appointed 3 medical members to an Advisory Committee because it felt this should be done in the public interest. As a result of these negotiations —

The terms of reference were widened.
The time limit was removed.
There were to be no public hearings or briefs considered until after the election.
Administration was left open to recommendation from the committee.
The committee has two added members —one from labour and one from the Chamber of Commerce.
The members of the committee are to be free to express their individual points of view.
A minority report can be recorded.

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The first meeting of the Saskatchewan Advisory Planning Committee on Medical Care was held on May 9, 1960; the second, late in June. The first meeting was organizational in character and resulted in a statement to the effect that the committee will first review the province's existing health programs and later suggest possible changes in the structure of provincial medical care.

The second part of Dr. Anderson's presentation dealt with an analysis of existing programs. His points in brief were:

1. A tuberculosis program has functioned well for some time under a politically-free board of directors.
2. Cancer diagnostic and treatment services have also been developed under a commission type of administration. The surgery, consultative work, and a large percentage of the care is carried out by qualified private surgeons and physicians.
3. There has been in existence an old age pension Medical Care Plan since 1945.
4. The Swift Current Regional Health Plan (July, 1946) has provided a program of medical care for fifty thousand persons in spite of its many defects. (see CMAJ, October 8, 1960.)
5. More than one third of the population of Saskatchewan is covered by medically sponsored non-profit plans of health insurance.

In his concluding paragraphs, Dr. Anderson states further;

'It is our belief that an over-all government controlled medical care program will result in the loss of personal freedom on the part of the patient in his choice of what he considers best for himself, and in the loss of freedom of his personal physician to always be able to do what he believes to be in the best interests of his patient. It will result in increased costs, and increased controls on patient and doctor. It will result in mediocrity of care".

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During the spring of this year, the Saskatchewan newspapers, and the newspapers of the country focused on the drama leading up to the election. The issue was, of course, medical care.

Every representative medical body issued statements, news releases; the public of Saskatchewan was deluged with a barrage of claims and counter-claims from groups, and individuals who seemed to be representing groups.

In April, 1960, the Student's Medical Society

of the University of Saskatchewan issued this statement:

"In the past few months, public attention has been drawn to the question of compulsory, government-controlled medicine. Because of this discussion the Student's Medical Society of the University of Saskatchewan, representing the future physicians of this province, feels that it is obliged to make the public aware of its point of view of the matter. Based on an analysis of the International Code Of Medical Ethics (May, 1948) and excerpts from the proceedings of the C.M.A. meetings of May, 1959, a resolution opposing the principle of state-controlled medicine was overwhelmingly passed at an extraordinary general meeting of the Society held recently. The principal reasons given in opposition to state-controlled medicine were as follows:-

1. Fear of increasing government control will act as a deterrent to the person of independent character from people, the possibility of the life of a bureaucrat is unattractive.
2. Government-controlled medical practice, by virtue of its employer-employee relationship makes the doctor give his allegiance to the state and not to the patient to which person it properly belongs.
3. The quality of medical care will decline as a result of administrative interference with the professional judgement of the physician resulting in an impersonal assembly-line type of practice".

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We all know the rest....Mr. Douglas won the election. He promised the people of his province that he would give them state medical care and he will. It will be some time before the medical profession, now licking its wounds, will recover its public image as faithful servant of the suffering.

It would seem that the public conception of a doctor precludes his engaging in politics, especially when the issue is the method of his getting paid. His concern over this area, while wholesome and natural, nevertheless disturbs a public which is becoming increasingly sceptical of medical humanitarianism.

The profession must, in the future, we feel, take care to present a simple case to the public, uncomplicated by long reasonings and philosophic comment; and also avoid the pitfalls of overstating its case.

Saskatchewan is only the beginning.

ABSTRACT: A Suntan-Simulating Agent; *Howard I. Maibach and Albert M. Kligman;* Archives of Dermatology, Oct. 1960.

Dihydroxyacetone is the active agent in the newly marketed suntan-simulating proprieties. The best known of these (Man Tan) is essentially a 5% aqueous solution of dihydroxyacetone. It is colorless when applied, but after a variable number of hours the skin becomes a light brown.

In general the depth of color directly correlates with the thickness and compactness of the stratum corneum. Smooth, unblemished skin takes the coloration best. Older senile skin acquires a mottled and irregular shade. Hard keratin is not materially affected.

Histological sections showed that the color did not go deeper than the horny layer of the skin. There was no increase in melanin. It is thought that the color may be due to the interaction between dihydroxyacetone and the amine groups of the proteins in the stratum corneum. The color fades as the stratum corneum is worn away.

The substance was found to be of some value as a concealing agent in white patients with vitiligo. No instances of toxicity or irritation were encountered in the authors' study.

ABSTRACT: A Transistorized, Self-Contained, Implantable Pacemaker for the Long-Term Correction of Complete Heart Block; *W.M Chardack, A.A. Gage, and W. Greatbatch:* Surgery, Vol. 48, Oct. 1960, pp. 643-54.

To date the disadvantages of artificial pacemakers in overcoming the heart block associated with surgical repair of septal defects and Stokes-Adams asystole have warranted development of a new instrument. The object was to provide a self-contained unit of small size, carrying its own power supply and lasting long enough to make subcutaneous implantation practical and justifiable. The wave-shape of the electrical pulse is biphasic so that no net transfer of electrons from the electrodes into the right ventricular myocardium can produce injury. Mercury cell batteries with a life of at least five years deliver 8 volts with a current drain of 11 microamperes. Exhaustion of the batteries is signalled by a slow rise in normal pulse rate (about 40 to 50 beats per minute) over a period of weeks. The unit is moulded into epoxy resin covered by inert silicone rubber. 14 units embedded for more than 12 months have proven successful in clinical trials.

GREAT BRITAIN: THE NATIONAL HEALTH SERVICE

J.J. MOGAN M.A., 6T1

The National Health Service in Great Britain was implemented by the British Labour Party on July 5, 1948. This is the national plan most familiar abroad, at least in name, to both layman and doctor. There was probably more of fiction than of fact propagated about Britain's N.H.S. in the early days of its operation. Tales of Frenchmen arriving in flocks for free dentures and glasses, and cartoons showing boatloads of pregnant women coming from all countries in their hour of travail to have free babies, were legion during the summer and autumn of 1948. Now, after twelve years, the Service is accepted in a more phlegmatic manner by the British citizen and the British medical profession alike. The active protest of the medical profession before and during the early years of operation of the N.H.S. has passed now to a cooler measurement of its adequacies and inadequacies for the average citizen, and its advantages and disadvantages for the medical profession as the Service is at present instituted and operated.

While it is historically dramatic to think of the National Health Service as a revolution in social medicine dating from 1948, the facts relating to its institution go back many years. So it will be well first to review briefly the history of its institution, secondly to consider its aims and structure, thirdly to consider its achievements, and finally to assess some of its inadequacies and shortcomings.

HISTORY:

There is a tendency to view July 5, 1948 in Great Britain as the millenium in medical care, but the roots for the Service which blossomed in 1948 go far back. Indeed, a purist could push them back to Hippocrates or even beyond to the primaeval medicine man, but in Great Britain, a more realistic view confines the evolution of the National Health Service to the eighteenth, nineteenth, and twentieth centuries. These centuries again divide logically into three major periods: the first is the period before 1912, the second is that between 1912 and 1946, and the third is that since 1946.

From the time of the industrial revolution in the eighteenth century through the nineteenth until 1912, medical insurance took many forms. Huguenot workmen early in the eighteenth century founded the earliest British medical insurance societies. And after them, many insurance societies were founded by semi-religious organizations, provident societies, and strange as it may sound, the pubs. The rise of the trade unions saw yet another group which provided a form of medical insurance for its members. In addition, individual doctors had insurance "clubs" in which they cared for the membership at a very low periodic charge. Other doctors were hired by contract practice to give medical care to members of private organizations. In lower class areas, some doctors operated public dispensaries to the needy. One interesting aspect of this era in the history of British medical insurance is that the work was promoted by philanthropy: either by "friendly societies", by members of the medical profession itself, or later, as has been mentioned, by the trade unions. The other interesting aspect is that this philanthropy provided medical care and insurance to the lower classes only. The middle classes were ignored; the upper classes could take care of themselves. This persisted into the twentieth century.

In 1911, Mr. Lloyd George, Chancellor of the Exchequer, introduced into Parliament the National Insurance Bill. In the same year it was passed into law as the National Insurance Act and implemented in 1912. In aim, it was 'An Act to provide for Insurance against Loss of Health and for the Prevention and Care of Sickness, and for Insurance against Unemployment and for purposes incidental thereto'. Although the Bill had been well received in Parliament, it was opposed by the medical profession because of its financial and administrative arrangements. This opposition continued through its implementation in 1912, but by 1913, the British Medical Association, having bargained for and gained certain cardinal points, withdrew its formal opposition. The Act was, however, limited in scope, for in the first place it provided no specialist or hospital service for the worker, and in the second it provided no service at all for a worker's dependents.

The foundation was thus firmly laid for a consideration of national health, and in the year following the first war, as Act was passed creating a Minister of Health and abolishing the Local Government Board. The period from then until the second world war was one of investigation and discussion in Great Britain. A Royal Commission investigated in 1924 the working of the Health Insurance Scheme of 1912 as it had developed in the intervening years. The findings of this Royal Commission were of immense importance in the formulation of the National Health Service as it is known today.

The British Medical Association published a study "Proposals for a General Medical Service for the Nation" in 1930, approved by the Representative Body of the Association by a large majority. This study the Association revised and re-issued in 1938, for it was in 1938, with the threat of war looming large, that an Emergency Medical Scheme was contemplated, and action taken to assess available hospital space and to increase it. The exigencies made all too apparent the limitations and inadequacies of the health scheme then in operation, and prepared the way for what was to follow the war.

The Labour Party takes popular credit for the British National Health Service, but such credit in inexact. The Coalition Government determined a policy of national health service and announced it in the House of Commons in 1943. And in March 1944, Mr. Winston Churchill, speaking as Prime Minister said:

"The discoveries of the healing science must be the inheritance of all: that is clear. Disease must be attacked whether it occurs in the poorest or the richest man or woman, simply on the ground that it is the enemy...Our policy is to create a national health service in order to ensure that everybody in the country, irrespective or means, age, sex, or occupation, shall have equal opportunities to benefit from the best and most up-to-date medical and allied services available".

The National Health Service was virtually a *fait accompli* in 1943, but its establishment when proposed in 1946 was to proceed in three stages:

(a) Confidential and tentative discussions with the medical profession and the health authorities.
(b) A general plan formulated by the Ministers and published as a White Paper for public discussion.
(c) Determination finally by the government of the form of the general plan.

The intricacies of the disagreement and points of dissension between the government and the medical profession, and then as events progressed between the government and some representative bodies only of the medical profession, are now only historical prelude to the passing of the British National Health Service Act in 1946 and its ultimate implementation on July 5, 1948 under a Labour Government.

AIMS AND STRUCTURE

The Act of 1946, a very short one, makes clear its own aims: "An act to provide for the extablishment of a comprehensive health service for England and Wales and for purposes connected therewith". It is in six parts: Part I for central administration, and Parts II, III, and IV for the three groups of functional authorities. Part V contains special provisions relating to mental health. Part VI contains financial and administrative provisions.

The aim and function of central administration are worded in the Act as follows: "It shall be the duty of the Minister of Health...to promote the establishment in England and Wales of a comprehensive health service designed to secure improvement in the physical and mental health of the people of England and Wales and the prevention, diagnosis and treatment of illness, and for that purpose to provide or secure the effective provision of services in accordance with the following provisions of this act.

"The services so provided shall be free of charge except where any provision of this Act expressly provides for the making and recovery of changes".

The Minister of Health receives advice from a Central Health Services Council, and administrates his department through the authority of three functioning groups: the Hospital Boards, the Local Health Authorities, and the Executive Councils for the General Practitioners' Services. Each of these is independent of the others in power, but related in aim.

Part II of the Act deals with the Hospital and Specialist Service drawing together all the Hospital and Specialist assets of the country for the replanning of administration. All hospitals, mental hospitals and institutions giving specialized treatment passed to the Minister and were reorganized on a geographical basis into regional areas, each to be administered by a Regional Hospital Board and each Regional Board responsible to the Minister of Health. One small exception to this section of the Act was made as regards Teaching Hospitals. Instead of passing under the jurisdiction of the Regional Hospital Boards, Teaching Hospitals were administered separately by Boards of Governors, themselves responsible to the Minister of Health.

Part III deals with health services provided by Local Health Authorities, which were the County Councils and County Borough Councils acting through other Local Health Committees. By Part II the hospitals had been transferred to the Regional Hospital Boards. The other duties of the Local Health Authorities were now specified, enlarged, and made mandatory. One such duty was the provision of Health Centre Premises, a duty which since the implementation of the Act has not been carried out at all, nor is there any concrete plan at present for its execution. A second duty was in the area of Mental Health, but this is covered more specifically by

Part V of the Act. The third duty and the one with which the Local Health Authorities have concerned themselves most is the institution of care for mothers and young children, midwifery, health visiting, home nursing, vaccination and immunization, ambulatory services, prevention, care and after-care, and domestic help.

Part IV deals with general medical and dental services, pharmaceutical services, and supplementary ophthalmic services, or, in short, the services to be administered by the Executive Councils fomed in the areas which coincide with those of the Local Health Authorities. The Executive Councils deal with the registration of the populace on the panels of practitioners, the number of practitioners in the area under their control, the payments due to practitioners, the payment of dental, ophthalmic, and pharmaceutical bills, and both judicial and disciplinary matters relating to complaints and disagreements or matters affecting members of the profession. With the Executive Council a general practitioner signs a contract to practise in the area, and his practice cannot be sold within the Service.

Part V, as was mentioned before deals with Mental Health, but only in the supervision of mental health treatment and the performance of administrative duties as a public department. Older Acts like the Lunacy Act still exercise their powers and duties relating to the liberty of the patient.

Part VI deals with financial and administrative provisions for expenditures incurred by the National Health Service.

The structure of the Act explains its aims, and its comprehensive nature is clear at once. There are amending Acts to the original. The first was The National Health Service Amendment in 1949. Its purpose was to clarify the effects of the original Act on medical partnerships, guard against full-term salaried practitioner services by the Minister, and to enable charges to be made for pharmaceutical services and for the cost of treatment to persons not ordinarily resident in Great Britain. There were also a number of minor changes.

In 1951, the National Health Service Act received the Royal Assent. This very brief Act was "to authorize the making and recovery of charges in respect of certain dental and optical appliances" and further "to make provision for the accommodation and treatment outside Great Britain of persons suffering from respiratory tuberculosis".

It is with these aims and within the framework of this structure that the National Health Service operates. Some points have been omitted for they deal with the execution of the Act in concrete practice. The main points to be brought out are five in number:

1. A general practitioner working within the N. H. S. must sign a contract with the Executive Council in the region where he works or where a general practitioner vacancy has occurred which he hopes to fill.
2. The doctor is paid on a capitation-fee basis and, on his panel of patients, may have no more than 3500 names.
3. A patient has the right to chose his own doctor, and to change his doctor as he chooses; conversely the doctor is free to accept or refuse a patient to his panel.
4. A general practitioner receives in the neighbourhood of 17 shillings per panel-patient per year.
5. Men 18 and over pay 2s 4d a week towards the N.H.S. and 1s for a prescription.

Now we may consider the achievements and inadequacies of the British National Health Service.

THE ACHIEVEMENTS

These can be considered first statistically. 97% of the population are registered with the Service; 98% of the doctors in Great Britain are working either wholly or partly within the framework of the scheme. As far as cost is concerned, the scheme costs the British government approximately 3 1/2% of the gross national income. All the figures sound impressive — as most statistics are intended to.

In aim, then, the N.H.S. has succeeded in providing medical benefits for all in that cost need now never deter anyone in need of medical attention. The natural concomitant to this is that public health in Great Britain has never been so good as it has become with the N.H.S.

By the terms of the Act, too, there is a redistribution of doctors and medical services effected primarily by the Executive Councils. By limiting the number of medical practices available in the districts into which the country had been divided, the glutting of areas like the resort districts is prevented and more medical men and services became available for the underdoctored areas.

As regards the small matter of convenience, a doctor practising under the Service does not have any loss in time or money in the sending out of bills, and the paperwork connected with the Service is amazingly little considering the gigantic bureaucratic structure that administrates it. Whether or not this is an advantage depends largely on political viewpoint.

In the more tenuous area of doctor-patient relationship, achievements are more difficult to

assess since they depend on the attitudes of both doctor and patient. A responsible doctor may practise medicine to the best of his ability under the scheme, and the patient of course benefits. One factor, time, often limits the doctor-patient relationship, but essentially, it remains unchanged in its largest part for the reasonably intelligent doctor and patient. Some of the limitations and abuses of the doctor-patient relationship will be discussed again when the inadequacies and short-comings of the National Health Service are considered.

Probably the major achievement of the scheme is that such a large and comprehensive plan employing such distant and disparate elements and involving virutally every citizen in the country could work at all. That is the most astounding achievement of the British National Service.

INADEQUACIES AND SHORTCOMINGS

The first and primary inadequacy of the N.H.S is in the hospital facilities. Since the Service came into operation, no new hospitals have been built, although many hospitals have added wings. The result is that hospital accommodation has lagged far behind the demand for it. The result is obvious. Emergency medical and surgery cases receive precedence, naturally, as they should under any system. But elective medical and surgical cases go on to discouragingly long waiting lists that promise treatment any time up to four years later. There is crying need for newer and larger hospitals in Great Britain, but like the Health Centers of which the Act spoke, new hospitals have now been built.

A shortcoming of the plan is a result of the careful subdivision and redivision of jurisdiction and authority among the various governing bodies created by the Act. A general practitioner may treat a patient himself, but should the patient require hospitalization, he moves at once beyond the power of the general practitioner for the hospitals have an administrative body different from that controlling the practising doctors. So the rigid framework in its inelasticity breaks the relationship which it had nourished so carefully, strangely enough, at the door of the hospital.

The capitation-fee represents a huge area of possible inadequacy and shortcoming. The system was promoted and accepted by the medical profession, but it presents obvious loop-holes to even the most casual observer. Since a doctor's pay varies with the number of paitents on his panel, and since the maximum number he can have is 3500, the logical decision of a 3-year child would be that the more closely he approaches his maximum allowed patient-quota, the higher his pay will be irrespective of the type of treatment he gives. The doctor treating 3500 headcolds will make seven times as much as the doctor treating 500 cases of diabetes, although there is no comparison between the service or work involved. A lazy personality-boy will be financially far better off than his square, studious, and more energetic confrere. Nor is the picture one-sided. The patient, as well as the doctor, can abuse the capitation system. The patient who demands this treatment and that medicine will move his card to the panel of the doctor who will supply him — and may take the cards of many friends or neighbours with him. The capitation-fee system is so susceptible to abuse that it is folly to labour the point. The fact that it has worked at all is miraculous.

The abuses which can arise in the doctor-patient relationship may, in most cases, be traced to the capitation-fee system. Often, of course, difficulties between doctor and patient would arise were his particular doctor and that particular patient to be working under any or no scheme, but capitation-fee stresses the doctor's dependence on the patient and stresses also the rights of the citizens' claims on the medical profession. One of the amazing factors in the British N.H.S. is the integrity, not of the doctors, but of both doctors and patients in the tenuous area of their relationship with one another.

The final inadequacy or shortcoming is a questioning of the statistics. It is true that 98% of the medical profession in Great Britain work within the framework of the N.H.S. How many of the fresh graduates each year leave the country to practise elsewhere? When a young doctor signs on as assistant to an older doctor at the low salaries fashionable for such arrangements, what recourse does he have when, at the end of a year, he is ousted to be replaced by another eager young doctor? And where does he go? The statistics may truly give false picture.

CONCLUSION

In this article an attempt has been made to evaluate and assess the National Health Service in Great Britain. First, we reviewed its institution, secondly its aims and structure, thirdly its achievements, and finally some of its inadequacies and shortcomings.

It stands as a sort of historical parable. Quo vadimus?

BIBLIOGRAPHY

Ross, J. S. ; The National Health Service in Great Britain; Oxford University Press, 1952.

Eckstein, H. ; The English Health Service; Harvard University Press, 1958.

SCANDINAVIAN HEALTH SERVICES

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Scandinavia has been described as "the social laboratory of the world". Those five northern countries — Norway, Sweden, Finland, Denmark, and Iceland — have had a long history of comprehensive government-administered health programs, differing in each country, but with enough similarities to make discussion as a group feasible.

It is appropriate that Canada should, as the scope of its health services expands, examine critically the existing programs of the Scandinavian countries. This paper will survey briefly the means and extent of services in the Northern Countries, with specific reference to the Norwegian program.

SOCIAL BACKGROUND:

The Northern Countries have for centuries been closely associated ethnically, historically, and economically. Since the middle of the last century, "Scandinavianism" has developed as an active cultural and political force, bringing the countries together even more closely. Military protection, trade, similarity of language, and geographical proximity have been important forces behind this unity.

The five countries are not rich. Thus class differences are small. Their economies have expanded, but only through co-operative effort on the part of the people. Through necessity there has developed a tradition of undertaking in common what the individual cannot do alone.

Politically, their governments have traditionally taken the middle way between free enterprise and individualism as seen in North America, and the domination of dictatorship. All five peoples are organization-minded to an exceptional degree, and the relatively smooth working of political democracy must be viewed against the background of highly organized political parties, as well as influential and powerful organizations outside the government. Labour, Agriculture, Industry, and Commerce all have powerful voices in the activities of government. Some understanding of the Scandinavian social structure gives greater insight into the origin and wide acceptance of their government health programs.

DEVELOPMENT OF HEALTH SERVICES:

The safeguarding of the health of the population has long been considered a natural responsibility of the community, on a par with other public functions.

Local Medical Officers of Health were present in Sweden 250 years ago. More comprehensive developments in the field of social welfare have been gradual, originating from 1850 to 1880 with health legislation in Denmark, Sweden, and Norway. In Norway, a government health insurance program began in 1911, superceding private insurance companies, and establishing compulsory health insurance for workers whose incomes were below a minimum level. In all countries, the insured were initially a comparatively small percentage of the population. Gradually, the plans were expanded and refined, and more aspects of community welfare were encompassed.

Increasingly the funds for the maintenance of these services have come from the government directly, through taxation, rather than by prepaid insurance programs. The prepaid plans, initially private, have gradually been replaced by compulsory national plans. In all the countries, health coverage includes payment of most of doctors' fees, most of hospital costs, complete care with mental illness, tuberculosis, and other specific diseases, maternal and perinatal supervision, and industrial protection.

HOSPITALS:

Most hospitals are supported by the state, but are usually administered by the local community. The problem of how to insure the common man for hospital care — a controversial issue in other countries — was solved many years ago by these community hospitals. Some private hospitals are found in the larger cities, but these too receive considerable support from the government, and fees are accordingly low. Greater support is given to hospitals in sparsely settled rural areas.

Usually there is an initial hospital fee which must be paid by the patient. This terrent fee is not continued in chronic, long-term illnesses, but serves to cut down on trivial visits to hospitals.

MEDICAL CARE:

All five countries have state medical schools entirely supported by government, with no tuition or academic expenses. There is considerable variation in the type of practice the physician undertakes after graduation. In Denmark and Norway, over half enter private practice. Roughly one-third become private practitioners in Sweden and Finland. Public health doctors are numerous, accounting for about 30% of doctors in Finland, and around 10 - 15% in

Norway and Sweden. In all countries, hospital staff physicians are usually full-time hospital appointments, and thus receive salaries. This group includes almost half the medical profession in Denmark and Sweden, and about one-third in Norway and Finland.

As with hospitalization, the patient normally pays a deterrent fee, which is higher with the first visit, and decreases in cases of protracted care. Usually, the patient is free to choose his own doctor, although this becomes impossible in the sparsely settled areas. Public Health doctors receive a salary from the governments as well as small fees from patients. In Denmark, and Norway, private practitioners receive a fee for service from the national health insurance plan, based on standard fees agreed on jointly by the insurance plans and the medical profession.

NORWAY:

From 1911 onwards, an increasing percentage of Norway's population has received health insurance. In 1956, the entire population was included under the compulsory national health insurance program. This present program was enacted with little political controversy, and with no opposition from the medical profession.

Benefits include two-thirds to three-fourths of the cost of medical fees. These are refunded to the patient after he has paid the doctor. Accidents are covered fully, as are all hospital expenses, provided the hospital is publicly owned. Chronic illnesses are paid for entirely by the plan. Follow-up care, nursing homes, and drugs prescribed in hospital are all paid for. Ordinary medicines, however, are not paid for outside the hospital. For a few vital and expensive drugs, 75-100% of their cost is paid for by the insurance plan. Maternity benefits, transportation allowances, and funeral allowances are included in the plan.

The cost per person is estimated at 1.5 to 2.3% of the premium-payer's weekly income. Payments are made in a method similar to the Hospitalization Plan in Ontario; wage earners have their premiums deducted from their wages, and others are billed.

Income from other sources — employers, the local commune, and the national government — account for half the funds required to maintain the plan. The individual pays the other half.

The insurance organization is notable for its decentralization. While the program is enacted by the government, it is administered by about 750 local insurance offices, each being legally independent and self-governing. Local governments have a hand in the functioning of each local office. It would seem that Norway has achieved a fine balance between free enterprise and complete government control.

ACCEPTANCE:

The Scandinavian people are happy with their programs, although there is constant revision and innovation.

Acceptance on the part of the medical professions appears to be equally enthusiastic although no statements by the medical professions were available when this paper was written. In Norway, the health insurance scheme affects physicians directly only in that it enables the entire population to use their services, thus giving them more business, and guaranteeing them prompt payment of their fees. Otherwise they are professionally free to practise where they wish, and with no dictation from the government in their personal management of patients. As stated earlier, the Norwegian doctor receives a fee for service, based on standards which he has a voice in setting. Hospital physicians and public health physicians receive fixed salaries as well.

The status of the doctor in the community has remained high: his income is well above average, though not excessive.

SUMMARY:

The health services existing in the Scandinavian countries have been briefly described, with emphasis on the Norwegian program. These plans have been acceptable to the Scandinavian people because of their democratic background and long-standing traditions of community effort and joint co-operation. Generally the health insurance plans include most of the people, are supported to a large extent through government taxation, and cover the large proportion of all medical expenses. Doctors are most often reimbursed on a fee for service basis. There is apparently little or no dissatisfaction on the part of the medical professions toward the health plans.

ABSTRACT: Early Use of Oxygen in Coronary Thrombosis; *A.L. Barach et al:* Journal of the American Medical Association, Nov. 5, 1960.

In 11 of 12 patients with ischemic heart disease, the ECG abnormalities induced during exercise were inhibited by the inhalation of oxygen. Inhalation of 40% oxygen tension in the collateral blood vessels lessens the hypoxia of the heart muscle. For this reason the authors recommend the use of oxygen therapy as early as possible in all cases of coronary thrombosis.

U.S.S.R. HEALTH SCHEME

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It is general knowledge that what is called "State Medicine" exists in the Soviet Union. The term is not altogether self-explanatory, however, and information on this health system from the viewpoint of a Western medical man is hard to come by. The chief source of information for this article has been the report of a World Health Organization Fellowship Group who toured the USSR in the fall of 1958; in addition a few small Soviet publications have been used.

PHILOSOPHY AND ORGANIZATION:

As soon as the Soviet government came into power, it announced its intention to build a health system which would provide comprehensive medical care, both prophylactic and curative, available to all citizens free of charge. After some forty years of experimentation and growth, a complex medical service has evolved. The aim has been to integrate curative and preventative measures at all levels of administration. A basic principle of operation is "highly centralized planning and supervision, coupled with an almost complete executive and operational decentralization, permitting almost ninety per cent of problems to be dealt with at local levels, without disturbing the general and basic pattern in any way". (1)

The organizational structure can be seen in the functioning of six integral goups:

1. The *Directing, Planning, and Supervising Group*— the Ministry of Health—functions in this capacity. A central ministry dictates and supervises the general health policy of the nation, while a ministry in each constituent republic takes responsibility for overall planning of health services within its own territory (under the basic guidance of the central ministry).
2. *The Academic and Scientific Group*—is in charge of the co-ordination of research and methodology (see Research).
3. *The Advisory Group.* Advisory scientific councils are attached to the various ministries of health and to the big health departments both in urban and rural areas. The councils consist of specialists who advise the ministries as to the adoption of new methods of work and the introduction of new developments in medical science.
4. *The Educational Group.* The educational function is vested in a series of medical schools and institutes for post-graduate training which are controlled by the Central Ministry of Health.
5. *The Executive Group.* This group acts in the health departments at city and *oblast** levels. Each department generally has three technical (medical, mother and child health, sanitary and epidemiological) and two administrative divisions (general administration and finance). Attached to each medical department are the chief specialists of the various disciplines (internist, surgeon, gynecologist, epidemiologist, etc.) whose function it is to set standards and control the practice of their respective disciplines within their territory. They also act as specialist-consultants for the various operational units.
6. *The Operational Group.* The *oblast* and large city are sub-divided into *rayons* (or regions) each of which has a hospital serving a series of health units. The regional hospital offers comprehensive and integrated health care, both for in-patients and out-patients. It is responsible for the regular "health screening" of the entire population and for the follow-up treatment and surveillance of specific conditions. It is also responsible for sanitation and control of communicable disease in the area through a network of sanitary and epidemiological stations. The director of the regional hospital is also the health officer responsible for the whole area and his first deputy is in charge of sanitation and epidemiology.

The layout of medical facilities can best be described under the following headings:

Urban Medical Care: District health units serve areas of 3,000-4,000 people and are staffed by one doctor and a nurse. This doctor functions to detect disease, to control foci of infection, to supervise immunization, to treat the sick and arrange hospitalization when required, to carry out health-educational programs, and to insure sanitary conditions in the district. With this latter function he receives help from the staff of the sanitary and epidemiological station of the regional hospital. The district doctor provides home and hospital care; he is based in the out-patient department of the regional hospital.

The regional hospital is the second level; one such hospital was described by the W.H.O.: "This hospital serves a population of 90,000 people. It has 560 beds, including a number of specialized departments (urology, radiology, etc.) for the use of other *rayons* as well. The hospital is staffed by specialists in all branches of medicine and surgery. The out-patient department attached to the hospital provides three types of services: (a) general out-patient service, by 24 district doctors and their nurses, (b)

* An oblast is a subdivision of a republic which itself is further subdivided into "*rayons*" or regions.

specialized consultant care by the hospital specialized consultant care by the hospital specialists, and (c) dispensarization (follow-up) for special groups". (2)

Specialized central institutes are designated to give care and do research in specific fields of medicine and surgery. They have in-patient as well as out-patient facilities and specialized laboratories. They provide consultant services to regional hospitals with whom they are closely connected and from whom they receive referrals. They also keep in touch with hospitals throughout the land, promote, and supervise research.

Rural Medical Care. The rural areas are also served by district doctors based at regional hospitals, but because of the large distances, several additional units are formed:

a) A district hospital with out-patient services and 25 to 30 beds, serving a number of villages within a radius of 5 to 10 kilometers.

b) Out-patient clinics staffed by a doctor and *feldscher**, for those areas without district hospitals.

c) A *feldscher* or *feldscher*-midwife unit in every village and farming area. The latter unit is found where there are long distances to a hospital or maternity home and it consists of 2 to 5 maternity beds plus a labour room. These two smallest units are under the direct supervision of the district doctor.

Industrial Medical Care. Nearly all large plants have their own hospital and out-patient department plus a number of first aid posts. A plant employing 20,000 workers (with 25,000 dependents) has 135 doctors and 853 paramedical personnel. (4) Minor industrial plants use the regional and district outlets.

Sanatoria and Rest Homes: These are very prominent in the USSR and cater both curatively and prophylactically to many disabilities. These are built and equipped by ministries, industrial concerns, and trade unions, but are controlled by the Ministry of Health. At present, these contain enough beds to give one in sixty a month's annual stay. The ultimate aim is to provide one in two citizens a month's annual stay. The scientific rationale of some of the treatments given at these resorts is suspect by many Western physicians.

Research: There are two central groups involved here. The Scientific Medical Council, a consultative body which reviews advances in therapy, prophylaxis, technique, etc., and advises the Ministry of Health as to the practicality for general adoption also assists and advises the councils of the Constituent Republics. The Academy of Medical Sciences co-ordinates and supervises medical research in the country as a whole. It functions through 27 Central Institutes which specialize in different branches of medicine. These institutes carry on their own research, but also promote and supervise research at all operational levels down to and including the smallest peripheral units (the smaller units have only the minimum facilities for routine laboratory work, but may refer samples back to better equipped units). Although medical workers may submit personal research projects to the Academy for approval, and although research is widespread and highly comprehensive, the tendency to centralized choice and planning of projects would seem to result in rigid functioning.

* A *feldscher* takes a 3 year course with preliminary orientation in anatomy, physiology and pharmacology. He may also specialize in clinical subjects. He is permitted to prescribe medicines for minor ailments.

THE SOVIET PHYSICIAN.

Medical training in the USSR is the responsibility of the Ministry of Health, but changes in the curriculum require the approval of the Ministry of Higher Education.

A graduate of the secondary school (10 years) is eligible for application for medical training. Entrance examinations are required and those with the highest marks are usually enrolled. *Feldschers* and nurses with experience are encouraged to apply and are preferred, provided they do satisfactorily in the entrance examinations. At the beginning of the 6 year course, students choose one of 3 courses: general medicine, pediatrics, or hygiene. During the first two years all students are taught the basic preclinical subjects as well as "Marxism-Leninism" and foreign languages. At the termination of this period the training begins to be differentiated according to the three categories mentioned above. In the final year, the student is encouraged to further specialize in a particular field and extra facilities are provided to encourage him to devote as much time as possible to that field. Despite this undergraduate differentiation, it is felt that all three groups acquire a basic training which enables them to practise in any of the fields of general medicine.

Few undergraduates, apparently, try to change their field of study during the training course and, after graduation, doctors, although legally entitled to change to another of the 3 basic branches of medical practice, are not generally encouraged to do so.

Examinations first take place at the end of the second year and most failures occur here (about 10%). Students failing more than once are not permitted to continue unless there are special circumstances. Tuition is free and out-of-town

students are given help with lodging. In addition, everyone receives a stipend of from 250 to 400 roubles monthly. This stipend is discontinued if the student fails, but is immediately restored if the examination is passed at the very next opportunity. Those with outstanding undergraduate careers, or those showing exceptional promise in their final year are allowed to go straight to research and teaching institutes to continue their work. All other graduates must serve for three years in a designated unit. These graduates may indicate preference in regard to placement, but usually they are employed in a rural peripheral unit.

Those graduates aspiring to the degree of "Candidate of Medical Sciences" are only admitted to post-graduate institutions after a minimum of three years of post-graduate service and after passing another entrance examination. Successful applicants undertake a three-year course of study and research under the guidance of approved "scientific supervisors". During this time, they are paid full salaries and given facilities as required. Such a candidate must, after completion of his study, prepare and defend a thesis before a regular board. When his thesis is accepted, he receives his degree. A higher post-graduate title is "Doctor of Medical Sciences".

In addition to this formal post-graduate training, many short-term refresher courses of three to six month's duration are organized. Special arrangements are made for obligatory refresher courses for all medical officers who do not exhibit sufficient clinical proficiency or an adequate knowledge of medicine.

Doctors work 6 1/2 hours a day, the schedule of a district doctor being as follows: Three hours at the clinic (seeing an average of fifteen patients) then three hours home calls (about six calls) and one half hour spent on health education (lectures, organization of auxiliary workers, etc.). An official car with chauffeur is supplied for house calls and a nurse usually assists on these. Every district doctor is transferred to the hospital for two months of the year in order to keep him in touch with advances in hospital practice. A recent graduate will start with a salary around 800 to 1000 roubles (approximately the lower range of pay for a skilled worker). A rural doctor is payed slightly more than a city doctor for similar positions. As experience and responsibilities increase, so does the pay. The attainment of a position in a research or teaching institute means a salary many times the average, and such a physician is a well-paid person by Soviet standards.

THE SOVIET PATIENT:

Although all services are free to the citizen, certain drugs and appliances must be paid, at least in part, by him. No sum is deducted from his salary either for medical services or social insurance; these are paid out of the profits of state-owned factories or collective farms.

There appears to be little choice of physician; presumably, a factory worker can choose between his factory system and the district system. Also, a person may, at least in theory, go to a doctor after hours and pay him a private fee; however, such practice is not generally encouraged.

Sanatorium care is available only on medical and trade union recommendations. About 50% of the patients acquire free accommodation, the other 50% pay one-third cost (about 530 roubles) for a standard 28-day stay.

Maternal and child health is regarded as most important in the USSR. In fact, separate administration exists for these categories. The mother is legally entitled to 56 days pre- and 56 days post-partum leave with full pay (the latter may be extended if the mother's health warrants it). In 1957, 96% of all maternity cases were admitted to maternity homes. No nursing or expectant mother can be compelled to give up their positions unless this is absolutely necessary for reasons of health.

As for children, they are generally supervised by pediatricians from birth on, both in urban and rural areas. In 1957, 91% of all infants were breast-fed (breast-feeding is stressed in the health education and breast milk banks are maintained at every polyclinic. Pediatric wards are found in most hospitals.

Vaccination against smallpox and immunization with BCG are compulsory and immunization against diphtheria and pertussis is routine. It is general policy to reserve 1/3 of all sanatoria beds for children.

There is a form of workman's compensation functioning. Every worker is entitled to 4 months sick leave with full pay annually. In event of an occupational disability, the worker is entitled to the above, and if not cured within that time, his case is reviewed by a special board of inquiry, the state of disability evaluated, and the worker granted further leave, given some other employment, or pensioned according to the board's findings.

NOTES OF INTEREST:

-At least 50% of the physicians in the USSR are women.

-There is one doctor for every 570 of the population. In 1958, there were 6.8 hospital beds per 1000 of the population, plus about 1.4 sanatorium beds for the same number. In 1913, the nation's medical schools graduated about 900 doctors annually; in 1957, 19,000. (5)

-The degree of public participation in health education and first aid can be seen from the fact that the membership in the Red Cross and Red Crescent societies in 1957 was 27,000,000. (6)

-Treatment by homeopathy is available in the USSR in special clinics run by physicians with training in this field. The Soviet government tolerates, but does not support, homeopathy, therefore anyone desiring treatment must pay fees (8).

-Fee-paying clinics of the regular type are provided chiefly for travellers although anyone who wishes to pay the fee may go there instead of their district doctor (8).

-Life expectancy at the turn of the century was 32.0 years. By 1926-29 it had increased to 44 years, and by 1955-56, to 67 years (7).

-Crowded housing no doubt contributes to morbidity in the USSR as witnessed by the tuberculosis morbidity rate of 300 per 100,000 population in 1958 and the fact that the parasite, Ascaris, was found in 17% of Moscow children. (3)

-An indication of the scope of the prophylactic work undertaken is the fact that 100,000,000 people were "screened" for cancer between 1945 and 1957 (15). The heads of all divisions and departments pertaining to health services are medical graduates, even in such departments as sanitary engineering, nursing and paramedical training. Administration as a separate medical specialty does not appear to exist, all such work being performed by clinicians and specialists on a part time or temporary basis.

This article has not attempted to judge the technical level of Soviet Medicine, but has set forward salient features of the organization, mechanics and claims of the system.

BIBLIOGRAPHY

1. Health Services in the Union of Soviet Socialist Republics. Impressions of the World Health Organization Fellowship Group. Oct.-Nov. 1958, p. 4.
2. Ibid, p. 12.
3. Ibid, p. 22.
4. Ibid, p. 28.
5. Ibid, p. 33.
6. Ibid, p. 48.
7. Ibid, p. 52.
8. N. Vinogradov, Health Protection in the Soviet Union, 1957, p. 35.

ABSTRACT: The Pathogenesis and Management of Shock Due to Infection; *Wesley W. Spink:* Archives of Internal Medicine, Sept. 1960.

Shock due to infection is peripheral vascular collapse with progressive hypotension due to a variety of Gram-positive and Gram-negative bacteria, rickettsiae, and viruses. Infection by coliform bacteria is the commonest cause. In this case the endotoxin is the responsible agent. During the initial stages the patients show fever, chills, pallor, tachycardia, hyperpnea and a moist skin. Progressive deterioration follows associated with fall in temperature and blood pressure, cold clammy skin, and oliguria or anuria. The initial basic physiological disturbance is severe vasoconstriction followed by, or alternating with, vasodilatation. This results in venous pooling of blood followed by reduced cardiac output, progressive hypotension, anuria, acidosis, and death. During the early phases of this 'endotoxin shock' there is a rise in the serum histamine, catecholamines, and serotonin. Therapy should be preceded by bacteriological culture. While awaiting these results, preliminary treatment with large doses of a broad spectrum antibiotic should be begun. Fluid and electrolyte balance must be maintained, but blood replacement is not considered a critical requirement unless there are other indications for its use (i.e. severe anemia). Oxygen has been shown to be a valuable adjuvant. To maintain blood pressure, pressor agents such as norepinephrine and metaraminol, used in conjunction with hydrocortisone pressor agents such as norepinephrine and metaraminol, used in conjunction with hydrocortisone, have been of great benefit.

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ABSTRACT: The physiologic Basis of Cardiac Arrest During Anesthesia; *R.W. Porter and J.D. French:* American Journal of Surgery, August 1960, Vol. 100, pp. 354-7.

Animal experiments have shown that cardiac arrest occurs when stimuli are applied during a stage in anesthesia when the function of the reticular formation is depressed and can no longer control and quantity visceral reflexes. This state occurs during moderate anesthesia so that vagal stimuli of any type are most likely to disorganize or even stop the heart beat at this time. Such stimuli are tracheal intubation, cardiac manipulation, and mesentric traction. The patient should be protected from all unnecessary sencory stimulation during the period when the pupil is constricted, the light reflex still present and the carotid sinus reflex enhanced.

CHANGE - THREAT OR OPPORTUNITY

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One hesitates to repeat the truism that we live in changing times. But, do we as members of the medical profession actually realize the extent of the changes which have been occurring and how they affect the provision of health services and medical care in Canada? Failure to understand these developments and to take them into account in planning will mean failure in meeting the challenge of the changing times.

First, there is the changing disease picture. During the first half of this century there has been a dramatic decline in mortality, particularly in the younger and middle age groups. In those groups under forty years of age the reduction has been about eighty percent. The role of public health measures in attaining the prevention and control of most communicable diseases has been a dominant one along with the more recent discovery of antibiotics and the development of better methods of control for some chronic diseases, such as diabetes mellitus and pernicious anemia. As a result, there has been a prolongation of the life expectancy of the Canadian people and, therefore, an increase in the incidence and prevalence of diseases common to the middle and older age groups. Many of these diseases are chronic in nature and have created problems of long-term treatment and care, rehabilitation, and cost.

Secondly, there is the changing picture in medical practice. Medicine has grown from a largely empirical art to a highly complex science. Every month brings new discoveries for the prevention, diagnosis, and treatment of disease. The individual doctor, with his "black bag" and limited techniques for diagnosis, treatment and especially prevention, provided the best service that medical knowledge could offer at the turn of the century. He is no longer able to do so. To give effective service to his patients now he must make use of hospitals with their highly specialized staffs and facilities, of many different kinds of specialist to whom he refers more complicated cases, of paramedical personnel, such as nurses, physiotherapists, and social workers, and of numerous community resources, such as public health services, visiting nursing services, homemakers services, and rehabilitation services. In other words, good medical practice to-day requires a team approach rather than a purely individual one.

A related development has been the trend to group practice. Good group practice involves more than the sharing of secretarial help and office space among several doctors. It is a genuine sharing of experience and, on frequent occasions, patients, as well as the services of paramedical staff and facilities. It has been found to be most effective where groups are large enough to contain both general practitioners and also basic specialists but where they are not so large that communication among the members is hampered. In addition to the stimulus to do good work, the doctor in a group practice has time for reading, meetings, refresher courses, and his personal life. For the patient it means the benefits of the ready advice of doctors with different experiences and of the constant availability of care. There is a need for futher study and experimentation in group practice, particularly in the areas of patient-doctor and doctor-doctor relations.

Another trend in medical practice, notably in teaching hospitals and large urban hospitals, is the appointing of specialists only as staff members, in some cases on a full-time, salaried basis. More and more only the complicated cases are being referred to these hospitals. Straightforward illnesses are being treated in medium-size hospitals where general practitioners also have staff privileges. Except in outlying areas, small hospitals with limited facilities are being replaced by the medium-size ones located in towns. This regional pattern of hospital services is an inevitable development arising from increasing medical knowledge and more elaborate techniques. Study to define more clearly the activities of the different types of hospital and their staff needs is necessary if high quality service, without an impersonal fragmentation of care, is to be the result of the changing hospital pattern.

Third, there is the changing economic pattern. New complex techniques and the specialization of staff mean increasing costs. For most families the unpredictable costs of illness, especially long periods of illness, present serious problems in financing by the direct payment method.

Changes in the economy of Canada have influenced medical economics also. The depression of the 1930's saw a partial breakdown of traditional methods for providing some medical care for those in economic need. Many doctors could not give free service any longer to the large numbers of their patients who were unable to pay for it. Many municipalities which had borne

some of the cost of medical care for the indigent were themselves in financial distress. Several provinces, usually in colloboration with provincial medical associations, started medical welfare programmes.

During World War II, those in the armed forces received a degree of medical supervision which many of them had been unable to obtain as civilians. Interest was aroused in planning for more active government participation in the provision of health and medical services. A draft bill was tabled in the House of Commons but, for various reasons, no further action was taken by the Dominion Government in the immediate post-war period. Instead, the pattern was one of tremendous growth in private insurance plans of different types, including those sponsored by the medical profession. More recently, the Dominion and provinces have assumed responsibility for developing plans to cover hospitalization expenses. Some provinces have shown an active interest in plans to cover the costs of doctor services.

Fourth, there is the changing social picture. The doctor no longer works surrounded by an aura of mystery. Instead, the full glare of public interest and scrutiny has been turned on him and his work. One great benefit from a better informed public has been the growth of voluntary organizations to encourage research, to indicate areas of unmet need, to demonstrate newer ways of providing care for many diseases, and to meet many of the social needs of people. As the organizations have multiplied, the needs for co-operative planning and co-ordination of activities have become more pressing. Some agencies need to reassess realistically the services they offer in the light of changing conditions.

The provision of medical care has become a live political issue. If the increasing public interest and concern is to develop along constructive lines and is not to be exploited for partisan purposes, it is incumbent on the medical profession to give wise and unselfish guidance.

Before long, over 90% of the Canadian people will be covered for basic hospitalization expenses under the Dominion-provincial programmes. The remainder receive care under other government programmes, such as those for the armed forces, veterans, Indians, and Eskimos. Nearly 95% of the costs of mental and tuberculosis hospitals are covered by public funds. In addition, governments make large grants for capital development and the renovation of hospitals.

Approximately one-half of the population is covered by private and government plans against the costs incurred by the services of doctors. In 1957, payments made directly by patients to doctors in private civilian practice accounted for about 57% of their professional incomes as compared to 62% three years earlier. Payments from private insurance plans, workmen's compensation programmes, and other government programmes accounted for 43% of their professional incomes in 1957. Indications point to a steady increase in the proportion of incomes received from third party sources. The precise percentages, of course, vary from province to province, locality to locality, and doctor to doctor. It is also interesting that, in 1959, 25% of civilian doctors in Canada received the major part of their professional incomes on other than a fee-for-service basis.

What are the major issues to be considered in planning for the future?

In the first place, any programme to improve the health of the people of Canada must be carefully designed to include a balanced and co-ordinated pattern of services to promote mental and physical fitness and to provide adequate public health and preventive services, diagnostic and treatment services, rehabilitation services, home care services, custodial and other institutional services, and social services. It is not enough to establish a scheme for the payment of sickness bills and call it "health insurance". Important as such payment is and attractive as it may be politically, it is a mockery of health to make benefits available only to the sick.

Research in the areas of mental and physical fitness has lagged behind research in the field of disease. It is difficult to plan ways for improving the health of people, when one must think almost entirely in terms of preventing or treating illness. There is also a need to study methods of communicating health knowledge to people. Health education should be an integral part of any medical care plan but it must be done in ways which result in public acceptance and application of the knowledge.

Approximately 20% of Canadians live in areas without full-time public health services. Not all of these areas are in the far north. It borders on culpable negligence when proven public health measures are not being carried out everywhere in Canada. The indifference to public health and preventive medicine shown by many doctors does little to stir the public into altering this lack of basic service.

For many years there have been extensive rehabilitation programmes for injured workmen and armed forces personnel but, except for some diseases, rehabilitation services for the general public have been inadequate. Though the situation is improving, many communities still lack satisfactory services. Voluntary agencies have played an important role in demonstrating the value of rehabilitation for those with certain

diseases. Wise medical leadership can do much to assure that the scope of rehabilitation services is extended to include every sick person who could be helped by them.

Home care programmes in a number of communities have demonstrated that more people can be cared for outside the hospital and that more can return home and to activity earlier than where these programmes do not exist. Many parts of Canada, particularly smaller communities and rural areas, have no such service. Even where programmes exist they are usually short of staff and limited in scope of service. A home care programme depends for success on the co-operation of the doctors in the community. It must include the services of social workers, homemakers, and physiotherapists, as well as public health nurses and visiting nurses.

Many people remain in general hospitals longer than is medically necessary because of a shortage of convalescent, nursing home, and chronic care accommodation. The solution is not merely to construct more buildings. There are also problems of staffing, standards, supervision, and financing. Most convalescent homes and nursing homes are privately operated. Many provide good service but it is difficult to enforce standards strictly in the poorer homes when the demand for accommodation is greater than the available supply. Under such circumstances, the demands of efficiency and economy all too often lead to a sacrifice of the important personal atmosphere of care.

The care of the aged is a closely related problem. Most older people prefer to remain independent; most are capable of doing so if certain basic services are available. These include adequate pensions, suitable accommodation, good home care programmes, and convenient recreation facilities. Some communities have made a start in building flats designed for old people, where they can be completely independent if they wish, but where hot meals and simple nursing assistance are available for those needing them. As yet, such developments are few in number.

The outmoded older concept of care in large institutions is still followed much too widely. Though the physical and sanitary aspects are usually satisfactory, the atmosphere of such large institutions is often far from home-like. Some even forbid their residents to bring personal furnishings or hang pictures on the walls. Many are located in the country outside the cities, so that the old person suffers from the loneliness of isolation from family and friends. Fortunately, some enlightened communities now build smaller homes within their boundaries for those old people who require institutional care. In most places, there is a long way to go before adequate arrangements become available for the aged.

Social and economic well-being are intimately related to mental and physical well-being. Any balanced pattern of health services needs a corresponding balanced pattern of welfare measures and social services. All too often doctors and social workers regard one another with suspicion, even hostility. It is time for these groups to learn to work amicably together in pursuit of the common good.

In the second place, any programme to improve the health of the people of Canada must have quality of service as a guiding principle. Provincial hospital commissions, voluntary hospital accreditation programmes, and hospital staff committees, such as tissue committees and mortality committees, are doing a great deal to improve standards of hospital care. Refresher courses and travelling consulting groups sponsored by universities and various medical bodies are helping to bring modern medical knowledge to those doctors without close, formal hospital relationships. These measures do depend for success, however, on the willingness of individual doctors to take advantage of them. For a variety of reasons, some doctors are not reached by these means. Professional supervision of professional matters is a fundamental principle of high quality health services and medical care. But, it does imply an obligation on the part of the medical professionto supervise the work of its members. If this privilege of self-control is to be retained the public has a right to expect protection against not only the unethical doctor but also against the careless doctor who fails to keep up-to-date in knowledge and skills. This is a thorny problem to solve, but solved it must be. The only alternative to effective professional control is an increasing degree of control of professional matters by others.

In the third place, any programme to improve the health of the people of Canada must provide a greater number and a more equitable distribution of personnel and facilities. This is a particularly difficult problem for a country of the size, geographic differences, and varying population density of Canada. By construction grants and through the efforts of provincial hospital commissions, the different levels of government are trying to increase the number and improve the distribution of hospitals. It is more difficult to achieve similar results for personnel. In 1959, the overall ratio of civilian doctors to poputation in Canada was 1:918 but wide variation was found among the provinces. Some had fewer than one doctor for 2,000 people. Even greater

disparities were shown to exist when only qualified specialists were considered. The distributions of nurses, dentists, and other health and medical workers are equally variable. The relative absence of good hospital facilities, roads, cultural amenities, and educational facilities deters personnel from going to some areas. For groups, such as nurses and technicians, low incomes hinder recruitment. It is necessary to pay increased attention to these problems if satisfactory solutions are to be found.

What should be the response of the medical profession to the changing times and to the resultant issues? Some doctors, understandably enough, react in a hostile manner to any suggestions for changes in the existing pattern of providing care. They would ennoble the chief features of this pattern as principles which must be defended at all cost. It should be a matter of deep concern if fear of the unknown leads to attitudes which the public will have difficulty in interpreting as other than efforts to protect a vested interest in the *status quo*. The position of the medical profession will be precarious, indeed, if ever it depends for justification on the selling skills of public relations experts.

Other doctors, in spirits of either hopelessness or indifference, react with the attitude that social and economic affairs are not really their concern. Such views, if they were to be adopted by the medical profession would almost surely guarantee undue emphases in future developments on economics and administrative efficiency at the expense of necessary professional prerogatives and of quality of care.

What, then, are the steps which will lead to a real solution? There needs to be a frank appraisal of medical education. At present, the student is prepared to meet his scientific clinical responsibilities but he is ill-equipped to fulfil his social obligation as the guardian of the public health. Concepts of prevention, teamwork, and social responsibility cannot be fostered by departments of public health and preventive medicine alone. They must permeate all medical teaching.

Doctors must look dispassionately at the present methods of providing service in Canada and elsewhere to distinguish between principles and elements of self-interest. Only when it knows what is really important has the medical profession the right to speak. Then it is an obligation to do so in unmistakable words.

Finally, we doctors must be prepared to work with all those who genuinely seek to develop in Canada the best health and medical service which modern knowledge and skills can provide. Thus, and thus only, change becomes not a threat but an opportunity.

ABSTRACT: Prognosis and Anticoagulant Prophylaxis After Coronary Occlusion; *J. McMicheal and E.H.O. Parry:* Lancet, Nov. 5, 1960.

The outlook after myocardial infarction has usually been assessed by comparing results of treatment in a few score patients with a simultaneous controle series. The relatively small numbers may lead to chance results which are deceptive. There are many factors influencing prognosis, such as age and sex. In many studies there is no mention as to whether the results have been corrected to allow for these factors. Likewise, some papers make use of retrospective studies whereby one series of patients treated in one country is compared with a series reported in a different country years before. When allowances are made for variations in the control groups compared with the treated groups, and when large numbers of patients are reviewed, it is found that the evidence that long term antigoagulant therapy prevents recurrence or reduces mortality is inadequate.

It seems that most of the benefits of therapy arise in the acute phase of infarction and are related to the limiting of venous tthrombosis and the prevention of pulmonary embolism. The antiprothrombin drugs have likewise not yet been demonstrated to be of any value in cerebrovascular occlusive disease and occlusive arterial disease of the legs.

At least part of the reason for this is the fact that venous and arterial thrombosis probably differ considerably in their pathogenesis. Arterial thrombosis is based on underlying disease of the arterial wall — atheromatous plaques and ulcers which can liberate local tissue thromboplastins into the blood stream. Ischemia and myocardial infarction have been reported in patients with hemophilia, observations which raise serious doubts on the usefulness of anticoagulants in preventing local thrombosis on damaged arterial intima.

The problematic benefit from anticoagulants should be weighed against the risk of hemorrhage which is considerable. In addition there are several reports to the effect that sudden cessation of therapy results in increased risk of thrombosis. For this reason it is recommended that after their use in the acute phase the drugs be tapered over a period of 3-4 weeks.

CIBA

PRESENTS

ON INSPECTION

L.M. JERRY, 6T1.
G.E. HOWEY, B.A., 6T2.

Answers may be found on page 100.

Fig. 1. — Name this lump.

Fig. 2. — What is the name of the disease with this characteristic skin lesion?
What other disease may contacts with this one develop?

Fig. 3. — What is the malformation?

Fig. 4. — What is the disease process producing this result?

Fig. 5. — In what disease state did this deformity occur?

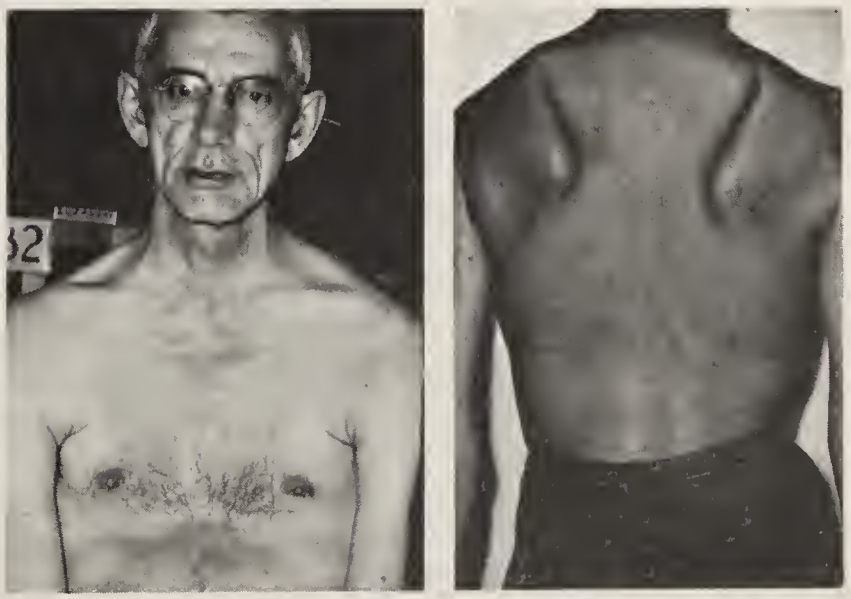

Fig. 6. — What is the name of this condition?

IDIOPATHIC SCOLIOSIS

GERALD SHETISKY, 6T2

INTRODUCTION:

Scoliosis refers to a lateral curvature of the spine, away from the anatomical median line. The curvature is usually accompanied by a partial rotation of the vertebrae forming part of that lateral curve.

Idiopathic scoliosis, as the name implies, refers to that group of scoliosis for which there is no known etiological agent, as distinct from the scoliosis which may follow neurological, traumatic, osteopathic or any other known causes.

The commonest case of idiopathic scoliosis presents as a young adolescent female with a double curvature convex to the right in the thoracic region, and convex to the left in the lumbar region (8).

CLASSIFICATION:

The following classification groups the scoliosis. according to their etiology. Verification of the etiological agent is important when considering treatment.

Functional Scoliosis (curve not fixed)
Poor posture
Short leg
Fixed pelvic tilt — adduction, abduction of the hip.

Structural Scoliosis (curve fixed)

I. Idiopathic (75-80% of all cases) (9). Some of these cases seem to follow a familial distribution suggesting a possible hereditary factor (3).
II. Known etiology
    A. Prenatal.
        Sprengel's deformity.
        Hemivertebrae.
        Klippel-Feil syndrome.
    B. 1. Osteopathic
        (i) Inflammatory
            Empyema
            Pott's disease
            Osteomyelitis
        (ii) Traumatic
            Fracture dislocations
            Post-thoracoplasty
        (iii) Tumors
        (iv) Intrinsic bone disease
            Rickets Hurler's syndrome
            Morquio's disease
            Marfan's syndrome
            Osteogenesis imperfecta
    2. Neuropathic
        Post-poliomyelitis
        Muscular atrophy
        Neurofibromatosis
        Syringomyelia
        Cerebral palsy
        Friedreich's ataxia
    3. Myopathic
        Muscular dystrophy
        Torticollis

ETIOLOGY AND PATHOGENESIS:

Whereas with other types of scoliosis, the etiological agent is known, with idiopathic scoliosis there is no obvious bony or soft tissue pathology to account for the scoliosis. Various theories have been advanced to account for the distortion of the spine.

The most favoured theory invokes muscle imbalance at the level of the primary spinal curve (4). The muscles on the concave side of the curve are thought to be hyperactive, and those on the convex side, normal. Unequal muscle pull, combined with effect of gravity and resulting stress of body weight bearing, result in fixation of the functional scoliosis, and idiopathic scoliosis is diagnosed. Adam Gruca (4) postulates congenital abnormalities of muscle innervation, or reflex muscle spasm induced by local inflammatory lesions, as possible causes of muscle dystonia.

A common misconception is that faulty posture results in fixed deformity of the spine. On the contrary, muscle dystonia and spinal deformity are thought to cause faulty posture. Only 2-3% of the functional variety become fixed structures (6).

PATHOLOGY:

Distortion of the vertebral column from its normal position results in abnormal wear and tear on soft and bony tissues. The tissues respond to the abnormal stress of unbalanced weight bearing, by means of pathological alterations in structure. Uneven weight on the bodies of the vertebrae involved in the curvature results in a wedging of the vertebrae, the thinnest part of the vertebrae involved in the curvature being on the side of the concavity. Other changes in the vertebrae involve osteosclerosis and osteoporosis. Discs, also, subject to abnormal stress, become compressed and herniations occur. Osteoarthritis often follows.

Soft tissue changes are numerous. Muscles on the convex side of the curve become atrophied and show degenerative signs, while those on the concave side are known to hypertrophy. Fibrous connective tissue, tendons and ligaments become thin on the convex side and thicker on the concave side (6).

Gross changes of the thoracic cage vary with

the level and severity of the curve. The thorax is distorted and usually displaced as a whole towards the side of the convexity. Due to deformation of the ribs, the lungs may be compressed and their physiological function interfered with. Dyspnea occurs, and there is often bronchiectasis on the compressed side. Displacement of abdominal organs can cause gastro-intestinal disturbances.

CURVE PATTERNS:

According to Ponseti and Friedman (8), there are five main patterns of curves in idiopathic scoliosis. Most of the characteristics of a curve are present from the onset of deformity. However, the curvature usually increases with body growth.

(1) *Main lumbar curve.*

Of the 394 cases studied by Ponseti and Friedman (8), 23.6% fell into this group. Six times as many females as males were affected. This type was the most benign and produced least deformity. Stabilization of this curve occurred earlier than with other patterns. First signs of curvature were noted at an average of 13 years and 4 months, stabilization occurring around 14 years and 10 months. The length of the curve was generally 5 vertebrae, from T11 - L3, the apex being at L1 or L2. Convexity was to the left in 70% of cases, and to the right in 30%. Small counter curves were present above and below the primary curve. Average angular value of deformity after stabilization of the curve was 36.8 degrees with patient standing and 29.1 degrees when supine.

(2) *Thoracolumbar curve.*

This pattern occurred in 16% of cases. Of these, three and one-half times as many females as males were affected. Here the convexity was to the right, in 80.9% of cases, and to the left in 19.1%. Length of curve was generally 6 to 8 vertebrae, from T6 or T7 to L1 or L2, with the apex at T11 or T12. Onset was fairly late, averaging 14 years. Curve stabilization occurred at about 16 years. Average angular deformity after stabilization of the curve was 42.7 degrees standing and 35.0 degrees when supine. Deformity was slight.

(3) *Combined thoracic and lumbar curves (double primary curve).*

This pattern was the most common, occurring in 37% of the 394 cases. More girls than boys were affected, in a ratio of 13:1. The primary thoracic curve extended from about T6 to T10, with the apex at T7 or T8, and there was a primary opposite lumbar curve from about T11 to L4, with the apex at about L2. A non-rotated vertebra separated the two curves. Convexity to the right of the thoracic and convexity to the left of the lumbar curve occurred in 136 out of 146 cases. Average age of onset was about 12 years and 4 months. Stabilization was at 15 years and 5 months. Prognosis here was good, since generally the body was well aligned. However, in those few which appeared before age 10, there was great deformity.

(4) *Thoracic curve.*

Primary thoracic curves accounted for 22% of the cases. Females were affected two and one-half times as frequently as males. Average age of onset was 11 years and 1 month, this being the earliest of all patterns to appear. Stabilization was at 16 years and 1 month. Convexity to the right occurred in over 90% of cases. Curvature extended from T6 to T11, with the apex at T8 or T9. Vertebral rotation occurred to extreme degrees in many cases. Thus, deformities were more severe than with other types. Generally the earlier the start, the worse the prognosis, but even with some late starters in this group, the progression was extensively deforming.

(5) *Cervicothoracic curves.*

This is the smallest group, with only 5 out of 394 cases. Age of onset was about 15 years, and the curve was never pronounced. Angular value was from 20 to 58 degrees. Convexity was to the left in 4 out of 5 cases. Four were females and one was a male. Curvature was from C7 or T1 to T4 or T5, with the apex at T3. Body alignment was good, but deformity was unsightly because of high shoulder, elevated scapula and deformed thoracic cage.

CLINICAL EXAMINATION:

Idiopathic scoliosis usually presents with signs rather than symptoms. Although infrequent, symptoms do play a part in the early diagnosis. Pain can result from muscle strain caused by unequal weight bearing, or from muscle fatigue. There will often be a peculiar gait of limping, caused by a tilting of the pelvis to compensate for the curve (10).

Cosmetic deformity is the commonest cause of the patient's seeking medical attention. In a dorsal curve one would notice:

Prominence of the hip on the side of the concavity and elevation of the shoulder on the side of the convexity. The scapula on the convex side of the curve will be on a higher horizontal plane, and be further from the anatomical midline of the body, than the one on the concave side. The thorax below the scapula on the concave side is flattened or hollowed, while the convex side of the back is rounded, due to a backward displacement of the ribs on that side. Cosmetically, the individual will be described as being "long waisted" or having a "hollow",

on the side of the back involving the concave side of the curve.

For a proper physical examination the individual should have his chest, back and entire vertebral column exposed as low as the sacrum. Examine the patient standing in his bare feet, and then forward, and lateral bending manouvers should be executed, with particular attention to whether the curve is fixed, or merely functional (postural). The diagnosis of true idiopathic scoliosis can only be made when the curvature is fixed (i.e., non-reversible on lateral bending) and no etiological agent can be found. Measurement of leg length is important, as discrepancies here may be a cause of a functional scoliosis.

Neurological examination is important, so that conditions such as Friedreich's ataxia may be ruled out.

X-ray clinches the diagnosis. Films are taken of the entire spine, and to include the iliac crests in standing, sitting and supine positions. A lateral view is important to rule out epiphysitis and dorsal round back. A fixed curve usually shows up well on lateral bending toward the convex side of the curve. Measurement of the curve is done on the X-ray films. The angle of curvature, in an idiopathic curve, is less in the supine than in the standing position. However, as the curve becomes more rigid, the angle of the supine curvature will more closely approximate the standing angle. Another important sign on X-ray is the stage of ossification of the iliac apophysis. When the iliac apophysis reaches the posterior superior spine, according to Risser (5), "This is contemporaneous with the end of spinal growth, after which an idiopathic curve will not increase".

TREATMENT:

The aim of any treatment employed is to achieve a straight spine with no chest deformity, thus improving appearance and function. Depending on the age of onset and the location of the curve, conservative or more radical treatment is undertaken.

Rate of deterioration is important, and the more rapidly progressing curves demand more severe and earlier corrective treatment. Deterioration occurs most rapidly during greatest physical body growth.

Past Treatment: According to Cobb (1), "no one has ever shown any X-ray evidence of any appreciable reduction in a significant curvature as the result of exercises". It is true that exercises will help postural curves which result from weak musculature, but this is not the case with fixed idiopathic curves.

Various types of frames, beds, corsets and bizarre mechanical contrivances have been tried and abandoned in the face of newer methods.

Present Treatment: It is now realized that curves vary, like people, each one being slightly different and distinct in its own way. Some curves can be held or corrected easily, but others will continue to increase regardless of the treatment used. The great majority of curves are mild and never progress beyond a minimal point; thus no treatment whatsoever is needed. For those which do progress, the only treatment which has proven itself of real value in preventing deterioration, or in holding a correction, is spinal fusion (1). Before fusion, correction can often be attained through use of the Risser localizer plaster jackets. The patient is treated with a series of plaster casts which extend from the neck to the hips. Progressive corrections in deformity are achieved by changing the jacket every few months. Force is localized at the apex of the curve. Fusion is carried out by the Hibbs method, or some modification of his original operation. The spinous processes, laminae, and lateral articulations are included in the fusion. Early fusion does not seem to produce clinically significant loss of vertical growth of the spine.

Dangers in the Treatment: Overcorrection is a factor to be considered. If the primary curve is reduced beyond the sum of the secondary curves which are above and below, then the compensatory effect of these secondary curves is lost, and the trunk is set out of balance. Often, when there has been too much correction, the effect cannot be maintained even with spinal fusion (2). Enough correction to restore cosmetic effect and physiologic dysfunction is all that is really wanted.

Pseudoarthrosis is the other great danger. This may result from primary defects in the operation, such as failure of the graft to take because of poor blood supply, interposition of soft tissue, or other reasons. Failure can be through production of fatigue fractures in the fusion plate, caused by strain of overcorrection.

When the fusion area is selected, it is wise to include those vertebrae which are doubtful as to involvment. Failure to do so may enable the curve to deteriorate. If the fusion site involves much more than about six vertebrae, it may be best to do two separate operations, some time apart.

PROGNOSIS:

Onset and Location: The earlier the onset, generally the more severe the deformity. Similarly, cervico-dorsal and dorsal curves are more deforming than lumbar or dorso-lumbar var-

iety. Also, curves which deteriorate most rapidly have the worst prognosis.

Treated or Untreated: Many curves are self-stabilizing, with very little deformity. These are best left untreated. However, if a progressive curve becomes severe, and is untreated, then severe physiologic and cosmetic deformity results (6), which adversely affects the life and health of the patient through pathological changes. Thus, the main object of treatment is to correct or stabilize a potentially deforming curve.

PROPHYLAXIS:

It would be of immense help in the way of selecting treatment if one could foresee which individuals were to develop the most severe deformities. Fusion might then be carried out early and minimal scoliosis would result. Presently, there is little one can do about this. However, it is interesting to note that a number of affected individuals show positive family histories of idiopathic scoliosis. Perhaps more light might be shed on this topic through research in that field. Even though the problem of scoliosis has been with us for many years, we have much to learn about it.

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BIBLIOGRAPHY

1. Cobb, John R.; Scoliosis — Quo Vadis?, J. Bone and Joint Surg. 40A: 507-510, June, 1958.
2. De Forest Smith, Alan.; Scoliosis, J. Bone and Joint Surg. 40A: 505-507, June, 1958.
3. Fraser, F. Clarke; Unpublished data, 1960.
4. Gruca, Adam; The Pathogenesis and Treatment of Idiopathic Scoliosis, J. Bone and Joint Surg. 40A: 570-584, June 1958.
5. James, J. I. P.; Paralytic Scoliosis, J. Bone and Joint Surg. 38B:660-684, Aug., 1956.
6. Mercer, Walter; Orthopaedic Surgery. 4th ed. London, Edward Arnold and Co., 1950. p. 671-691.
7. Moe, John H.; A Critical Analysis of Methods of Fusion for Scoliosis, J. Bone and Joint Surg. 40A: 529-553, June, 1958.
8. Ponseti, I. V. and Friedman, B.; Prognosis in Idiopathic Scoliosis, J. Bone and Joint Surg. 32A: 381-395, April, 1950.
9. Speed, J. S. and Knight, R. A.; Campbell's Operative Orthopaedics, 3rd ed., Vol. 2:1981-2002. St. Louis, C. V. Mosby, 1956. 2 v.
10. Taylor, R. Turnstall; Orthopaedic Surgery. Baltimore, Williams and Wilkins, 1907. p. 177-236.

ABSTRACT: The Dual Role of the Adrenal Glands in the Pathogenesis of Peptic Ulcer; *Edward Woldman et al:* American Journal of Gastroenterology, Oct. 1960.

The authors, on the basis of 1150 consecutive post mortems, have noticed a striking correlation between severity of adrenal damage and acute ulceration of the upper GI tract. They suggest the following dual role of the adrenals in the pathogenesis of chronic peptic ulcer.

The initial lesion or acute ulcer occurs during a period of adrenal insufficiency as a result of a stressful situation. This is followed by hyperactivity of the adrenals. The consequent anti-inflammatory action associated with hypersecretion of acid and pepsin may disturb the balance between tissue destruction and tissue repair with retardation of healing and the beginning of a chronic ulcer.

ABSTRACT: Indications for Exchange Transfusion in Newborn Infants with Hyperbilirubinemia not due to Rh Immunization; *A. Killander, V.E. Eberhard, S. Sjolin:* Acta Paediatrica, July 1960, Vol. 49, pp. 377.90.

Hyperbilirubinemia of greater than 20 mg.%, not due to Rh incompatability, occurs in about 10% of premature infants and in about 2.3% of full-term infants. Regardless of treatment, no signs of kernicterus were seen in all of 94 full-term infants in this group; 10 of 23 prematures showed neurological signs, however. Thus, exchange transfusion is indicated in prematures with early neurological signs and hyperbilirubinemia of 15-20 mg.%, and is only indicated in full-term infants showing excessive hyperbilirubinemia (greater than 25 mg.%). ABO hemolytic disease should nevertheless be carefully followed for rapid rise in bilirubin levels.

THE DOCTOR'S INCOME TAXES

P.L. WEINGARDEN, B. COMM.,C.A.

One of the delights of the young medical student is the anticipation of high income in future years, and, equally, one of the delights of the Department of National Revenue — Taxation Division, is the anticipation of taxing this high income. Income taxes have been with us since 1917 and there is little likelihood that they shall not remain for many years. The government requires revenue to provide the services which the citizens demand, and unable to meet its obligations with indirect taxes and custom duties as had been done prior to 1917, it has resorted to personal and corporation income tax levies.

Most students' contact with the Tax Department has been meagre. They know that if they earn over $950 in a summer their fathers lose them as deductions. If they earn over $1,100, they have paid a small tax themselves. After graduation and internship, however, the doctor is well aware of the Tax Department, due to the great discrepancy between his nominal income and his take-home income and it is at this point he appreciates any tax saving that can be accomplished.

Tax rates vary in Canada according to taxable income. Taxable income is the amount deemed by the Department to be subject to tax and is determined by applying the provisions of the Income Tax Act to the taxpayer's total income. In most cases this is simply a matter of calculating the totals of business, employment, and investment income and deducting personal exemptions, ($1,000 plus amounts for wives and children) donation and medical allowances and, in some cases, alimony payments. In 1959 the taxpayer paid a minimum of 13.5% tax on taxable income under $1,000 and a maximum of 79% tax on taxable income over $400,000. In addition, he paid a surtax of 4% on investment income over a minimum of $2,500, but received a reduction of tax payable for dividends and foreign taxes paid. Consequently, it has become very difficult to amass a fortune.

Some people resent taxation and will go to great lengths to defraud the government. Other rare individuals will pay their annual assessment with all the fervour of an evangelical preacher at a revival meeting, on the premise that tax paying is a sacred duty. The majority of citizens remit what they honestly believe to be the proper amount, with reluctance, but realizing that the country must be financed.

The Tax Department tries to prevent tax avoidance and tax evasion. Some may try unusual methods to reduce tax and the courts might agree that the taxpayer was not avoiding tax but was entitled to the deduction. On the other hand, the court may agree with the Department and disallow the claim. As long as the items in dispute are clearly disclosed by the taxpayer there is no penalty except interest. Conversely, tax evasion constitutes fraud and heavy penalties are provided. Fraud occurs when records are falsified, not when illegal deductions are claimed. Those who falsify their records can expect eventual visits from the Mounties.

Unfortunately, many taxpayers do not claim all the deductions to which they are entitled. This may be due to ignorance of the law, or apathy - not wishing to take the trouble to seek methods of reducing their taxes. However, it has long been recognized that the individual is free to arrange his affairs in order to attract the minimum amount of taxation, as long as he does so within the framework of the law. It is suggested that medical practitioners should obtain information on how to arrange their financial affairs when they commence practice.

THE DOCTOR AS A BUSINESSMAN:

Although the doctor is primarily interested in medical services, he is also a businessman. He sells his services and pays his expenses from the fees received, the residue being his profit. Like the ordinary businessman, the doctor must pay rent, (or buy a building), pay employees, assistants, bill his patients, and sue those who refuse to pay. He must provide an income for himself and be competitive with other doctors as far as rates go. Liability insurance is a necessity, public relations are very important. The government requires the doctor to pay business tax, keep payroll records, and general accounting books and records. These are all non-medical aspects. of a practice.

The prudent doctor will realize that he has been trained in medicine and others can supervise his business affairs with more efficiency and economy than he. The Chartered Accountant does not practise medicine, nor should the doctor think he can practise accounting, for neither are qualified in the other's profession.

The qualified accountant will see that the doctor's business affairs are handled in such a way as to attract the minimum taxation. He will keep records satisfactory to tax assessors and creditors. Besides taxation matters, the accountant will give sound business advice and institute safeguards to prevent the doctor's staff from

helping themselves to the cash box and remaining undetected.

DETERMINATION OF TAXES:

The financial statements of the practitioner's business are prepared from the books and records usually kept by the nurse under supervision of an accountant. The operating statement for the year shows the income to be reported on the tax return. It is possible to have a fiscal year ending in any month of the year. The year end is determined by the doctor in his first year of practice and, as long as he is a sole practitioner, can not be changed without the concurrence of the Minister of National Revenue. The best time to end the year varies in every case. Regardless of the month in which the business year ends, income is reported on the tax return "T-1" for the year ended December 31. Therefore, if the fiscal year's end is March 31, 1960, the income for the year ended March 31, 1960, will be reported on the tax return filed for 1960. The income earned between April and December will be reported in 1962, for the year 1961.

The "T-1" tax return for a year must be filed by April 30 of the next year, with all taxes paid by that date. The Tax Department assesses the return and refunds any overpayment. Overpayments arise because the taxpayer is required to estimate his tax for the next year, based on the past year, and pay quarterly instalments in advance.

Often the tax return is re-assessed several months after filing. In order to expedite matters, assessors quickly review a return, looking only for obvious errors. Later in the year they review the file and may investigate the taxpayer's books. Sometimes changes are made and the taxpayer is billed for the difference in tax (or refunded). If the re-assessment is disputed, the taxpayer may file a Notice of Objection. This insures that higher authorities will consider the assessment before it is made final. If the Notice of Objection is denied, the Tax Appeal Board may be asked for a decision. The Notice of Objection is free, and an appeal to the Tax Appeal Board costs $15. After that, there is the Exchequer Court and the Supreme Court, and some taxpayers have won by going all the way to the top but they have incurred large legal fees, not recoverable if unsuccessful.

DETERMINATION OF INCOME:

Taxes are based on income. However, it is difficult to agree on what is business income. Accountants can only give opinions as to the amount of income for a year and two different accountants may be equally right with different figures. Because of this, the Income Tax Act specifies taxable and non-taxable receipts, allowable and non-allowable deductions. The income assessed by the Tax Department may not necessarily be the true income, but it is the income taxable by law.

Some of the items that can be deducted by practising doctors are: automobile expenses and depreciation, business use of residence, convention expenses, entertainment of patients, club dues, medical and professional dues, Retirement Savings Plan payments, travelling expenses, other business losses, and hobby farm losses, (as opposed to, say, hobby photographic losses). There are many others.

It is advisable, for example, to remember that convention expenses are deductible. Thus if a vacation is combined with a medical convention, some of the vacation expenses may be claimed against taxable income. Proper receipts should be kept if a deduction is to be made. A golf club membership is an allowable expense because the doctor meets prospective patients in his associations. A general rule is that, with few exceptions and limitations, any expense paid out to earn income is deductible. If a partnership is formed, there are several methods for legally minimizing tax, one being that the first fiscal period is made less than a year.

DISCRIMINATORY TAXATION:

Very few rational people will disapprove of progressive taxation, i.e., assessing the $20,000 a year man at higher rates than the $5,000 a year man. Those who benefit more from the privilege of doing business in a country should pay more towards its upkeep. However, there exists in Canada today a discriminatory method of taxation whereby certain classes of taxpayers pay more tax than other classes of taxpayers earning the same income. Unfortunately, professional people, including doctors, are in the class which is discriminated against.

The commercial businessman has certain advantages at his disposal. One is the opportunity to incorporate his affairs in order to be subject to lower rates of tax—a privilege which has been denied to the professional businessman.

Incorporation means conducting business through a limited company. A limited company in law is an artificial person with rights to contract, own property, and be considered distinct from its shareholders. It is limited in liability to the amount of money invested in it by the shareholders, the advantage being that if the company becomes insolvent and owes more than it can pay, creditors cannot collect from the share-

holders. If the business were not incorporated, the creditors could seize any personal asset of the owners to satisfy the business debt.

Limited liability is beneficial in that it encourages investment in business by protecting the shareholders from losses greater than their investment in the company. In trading concerns this is quite advantageous as many bankruptcies occur.

A limited company is controlled by the shareholders. The ownership is divided into shares, the shares count as votes in decisions. Thus if a man incorporates his business, he owns most of the shares and runs it the same way as he did before he incorporated. However, he now has limited liability and the corporation is taxed separately from himself.

The company's profit is taxed at lower rates than the individual with a high income. As the owner controls the company, he pays himself a salary so that the combination of personal tax and corporation tax is lower than either an all-personal or an all-corporation tax. The total corporation tax rates in Ontario are 23% on the first $25,000 and 52% above that. As there are no personal exemptions in a company, it is beneficial to pay a salary to the owner at least equal to his personal exemptions and medical-charitable deductions.

Another advantage of incorporation is that the corporation may pay a salary to the owner's wife if she does any work for the company. The unincorporated businessman is not allowed to deduct his wife's salary whether she earns it by hard work or not.

To give an example of the benefits of incorporation, consider a man with a dependent wife and two children. In the table below, Column 1 is the income earned, Column 2 is the amount of tax payable if not incorporated, Column 3 is the least tax payable by juggling corporation and salary rates and paying the wife $250:

COLUMN 1	*COLUMN 2*	*COLUMN 3*
$10,000	$1,445	$1,360
$15,000	$3,007	$2,510
$20,000	$5,081	$3,660
$25,000	$7,281	$4,810
$30,000	$9,601	$5,960

As can be seen from this table, the tax benefits from incorporating businesses with incomes less than $10,000 are negligible. As the income increases, the annual benefit becomes obvious. Although there are greater legal expenses under incorporation, technical methods can reduce taxes to an even greater extent.

There are disadvantages to incorporating, but most of these have nothing to do with taxes and are offset by tremendous tax savings. The greatest tax disadvantage is the double taxation aspect of removing profits from the company by dividends. In order to distribute profits taxed in the corporation's hands, a dividend must be must be declared and it is again taxed in the shareholder's hands. However, there are many methods of attacking this problem which will not be discussed here.

Ordinarily, professional doctors, lawyers, accountants, etc., are forbidden to incorporate by their professional societies. The purpose of this rule is that a professional man should not practise under the guise of an artificial person, and that there should be no limited liability. The doctor, etc., should be completely liable for his work and protected only by insurance. However, this rule precludes the possibility of corporate tax savings.

In 1959 several doctors in Western Ontario tried a scheme whereby they incorporated companies to manage their businesses. Similar to the position of staff doctors in the employ of large companies, these doctors signed agreements with their corporations to be paid salaries in return for supplying professional services. The doctors were still personally liable for any work they did, but their business affairs were handled by their companies. The companies were not practising medicine, they were making medical practitioners available to the public.

Unfortunately, this method was contested successfully by the Minister of National Revenue. The Tax Appeal Board threw out the corporations and taxed the doctors as individuals. The reasons for dismissal given by the Tax Appeal Board were that the contracts between the doctors and the companies were illegal because they violated the Medical Act and therefore the main purpose was to avoid taxes.

This decision was not well received as the Tax Department was enforcing another law for its own purpose. The Province of Ontario had given the corporations charters (i.e., incorporated the businesses) and the Tax Department should have taxed the corporations whether the contracts were illegal or not. The Department is not moralistic. Gamblers, prostitutes, bootleggers, and like types have been taxed by it, even though these occupations are illegal, for here it is to the Treasury's advantage. Due to the fact that tax assessors are bound by oaths of secrecy, they cannot give evidence against these illegal practitioners whom they have taxed.

The Tax Department should not determine who can or can not be incorporated. Their business is to tax corporations recognized by the issuing jurisdiction, not to try to enforce other laws. It would appear that the Department should either try to have Ontario cancel the charters, or else tax the corporations as such.

However, the Tax Department has accomplished this legal anomaly, manacling those doctors who wish to incorporate, at least for the present.

To say that the reason for the corporations was to reduce taxes is correct. However, many others not barred by professional societies, and who do not require limited liability, incorporate for tax advantage and are not challenged. Professional entertainers, insurance salesmen, realtors, for example, are professional people who may incorporate. They and the small businessman may do so primarily to save tax. In these days of high rates, rational individuals will minimize their liabilities for taxes as much as legally possible.

CONCLUSION:

It is indeed a pity that doctors and other professional people go to school for many years qualifying to practise, allow themselves to be disciplined by professional societies for the public's protection, and then are discriminated against in taxation. The successful businessman with no education, who had been earning money while the professionals were students, has no duty to the public, but is given great tax advantage on the same amount of income.

Professional people have been agitating for tax equality. One method tried was the corporation idea, described above. Others advocate the passing of legislation to permit professionals to elect to be taxed as corporations, without incorporating. Another idea might be to allow an exemption from taxable income for each successful year of professional training.

Someday the tax structure may be different, but the medical student of today should realize that he is fighting an uphill battle for tax equality with his non-professional peers. If all the professional societies do not demand fair tax treatment, they may never get it.

ABSTRACT: Recognition of Gastric Cancer by *in vivo* Radioautography; *N.B. Ackerman, D.B. Shahon, A.S. McFee, and O.H. Wangensteen:* Annals of Surgery, Vol. 152, Oct. 1960, pp. 602-14.

A method for the early detection and diagnosis of gastric malignancy has been developed which utilizes the selective uptake of radioactive phosphorus (P32) by neoplastic tissures. A condom balloon, coated on the inside with photosensitive emulsion, is attached to the end of a rubber nasogastric tube and introduced into the patient's stomach in a photographic darkroom. The balloon is then inflated with air until the patient feels slight discomfort (600-900 cc.) and left in place for hours. Upon deflation and removal, 150 cc. of photographic developer is injected into the balloon. The appearance of a darkened area indicates that segment of the balloon which has been in contact with cancer. In a series of 58 patients there have been no false negatives; however, false positives occur in the case of healing gastric ulcers.

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ABSTRACT: Two Cases of Sarcoidosis Treated with Mepacrine; *Nils Soderstrom:* Lancet, Oct. 29, 1960.

In two cases of generalized sarcoidosis, the cutaneous sarcoid granulomas were converted into atrophic scars following a month of therapy with mepacrine. It is felt that this effect is due to a specific toxic effect against the granuloma cells.

ABSTRACT: The Use of Methylpentynol Carbamate in Labour; *V.H. Barnett and M.H. Lloyd;* Journal of Obs. and Gyn. of the British Empire, Aug. 1960.

Methylpentynol carbamate (Oblivon-C), a long acting ataractic, was used to relieve the pain and anxiety of labour. Although high dosages were required no signs of toxicity to the mother or child were noted. In all patients such effects as sedation, tranquilization, and amnesia were noted. Half the patients required no other medication for the control of pain. There was no observed adverse effect on the progress of labour or the third stage.

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ABSTRACT: Holes in Rubber Gloves; *W.C. Beck:* American Journal of Surgery, Sept. 1960, Vol. 100, pp. 363-4.

It has been shown that bacteria migrate freely through the most minute holes in rubber gloves and that the inner surfaces of only 2% of gloves are sterile when they are removed. An instrument has been developed for the detection of holes in gloves during the operative procedure. A very small current of less than 5 volts is interposed in a circuit from the washbasin to the floor and through the surgeon wearing conductive shoes. When the surgeon dips his hands into the basin, if there is a hole in the glove the circuit is completed (i.e. the water contacts his skin) and this is registered on a meter.

ANSWERS TO "ON INSPECTION"

Fig. 1 — LATERAL CERVICAL BRANCHIAL CYST.

These appear as slow-growing masses of various sizes unilaterally along the anterior border of the sternocleidomastoid muscle, most commonly at the angle of the mandible. The majority rupture forming a complete fistula opening externally through the skin and internally into the pharynx near the tonsils. Infection of the cyst soon occurs. A familial tendency has been noted. Some feel that they arise from incomplete closure of the lower end of the thyropharyngeal duct; others postulate an abnormal development of the second arch which interferes with the normal obliteration of the precervical sinus. The cyst contains fatty substances — sticky and turbid or watery and clear enclosed in a wall, lined usually by squamous epithelium surrounded by lymphoid tissue.

A useful classification of lumps in the neck appears in the University of Toronto Medical Journal, Feb. 1960, vol. XXXVII, No. 4, page 136.

Fig. 2 — HERPES ZOSTER (Shingles)

Contacts with this may develop chicken pox (Varicella).

This disease state is due to invasion of the posterior root ganglia by a virus and is characterized by pain, followed by a rash over the cutaneous distribution of the affected nerve. Occasionally the virus may invade the spinal cord or the brain giving rise to myelitis or encephalitis.

The disease most often presents with severe, continuous pain over the distribution of the affected nerve. The pain may be accompanied by pyrexia and malaise but frequently the general disturbance is trivial. After 3-4 days, the skin in the affected area becomes reddened and vesicles appear. In about 5-6 days time, the vesicles dry up to leave small anesthetic scars.

While the condition may affect any nerve root, it is most common on the trunk where it usually involves two or three adjacent segments on one side only. When the ophthalmic division of the trigeminal nerve is invaded, the vesicles appear on the cornea and may lead to corneal ulceration with the danger of resultant scarring and impairment of vision.

Easily diagnosed once the rash appears, Herpes Zoster earlier may be misdiagnosed as pleurisy, cholecystitis or a spinal cord lesion.

Fig. 3 — OCCIPITAL ENCEPHALOCELE

Incomplete closure of the neural tube caudal to the brain results in several malformations;

1. Rachischisis — complete failure of closure of the neural arch throughout the length of the vertebral column with exposure of the unclosed neural groove.
2. Spina bifida occulta — local dorsal arch defect, usually lumbar of sacral, in which the gap is filled with connective tissue to which the cord membranes are attached. Often it is indicated by an overlying subcutaneous lipoma, tuft of hair, pilonidal dimple or sinus.
3. Meningocele — a protrusion of the leptomeninges through a local defect in bone and dura in the vertebral column or skull with the leptomeninx underlying the skin.
4. Meningo-myelocele — a meningocele with spinal cord or cauda equina tissue in the protruding part.
5. Encephalocele — a meningocele of the skull with inclusion of part of the brain in the protruding part.
6. Syringomyelocele — a meningomyelocele with the addition of a cystic distension of the central canal of the cord.
7. Myelocele — similar to rachischisis except that part of the dorsal arch, usually the thoracic portion, is formed. The two sides of the spinal cord fail to fold together with the superficial structures along the rest of the canal; the open cord appears on the body surface as a red granular area weeping CSF from its centre.

The common *complications* include paraphlegia with no control over anal or bladder sphincters and Arnold-Chiari Malformations with hydrocephalus. In those anomalies where the cord is attached to the protruded membranes, linear growth results in traction which is applied to the cord causing gradual herniation of the medulla and cerebellar tonsils through the foramen magnum. The roof of the fourth ventricle is distorted, its foramina closed, and a non-communicating hydrocephalus results.

Fig. 4 — GOUT

An hereditary distrubance of uric acid metabolism, gout is characterized by hyperuricemia, acute attacks of arthritis which respond to colchicine specifically, late degenerative and destructive changes in the joints and a tendency over the years to the formation of chalky deposits of sodium monourate, either nodular (tophi) or diffuse, in cartilage and tissue around the joints. This ancient disease, first recognized medically by the Greeks and Romans, derived its name from the Latin *gutta,* meaning "drop" in the joints.

This condition in which a family history is obtained in from 50-80% of cases, occurs mainly

after age 40, in males, and in the temperate zone. A high purine diet may or may not predispose.

Diagnosis is relatively easy in the late stages when tophi and gouty arthritis are present, but early cases may pass undetected for many years unless blood uric acid analyses are made. Even in the acute arthritic stage, one must differentiate this condition from acute rheumatic fever, rheumatoid arthritis, osteoarthritis, bursitis and acute cellulitis.

Fig. 5 — RHEUMATOID ARTHRITIS

Impaired hand function is found in approximately one fourth of the patients with rheumatoid arthritis. Three *patterns of joint deformity* are commonly observed in the rheumatoid hand;

1. Flexion of the wrist, hyperextension of the metacarpophalangeal joints, flexion of the interphalangeal joints and adduction of the thumb.
2. Ankylosis of the interphalangeal joints in hyperextension.
3. Ulnar deviation at the metacarpophalangeal joints often with dislocation.

Also, soft tissue changes often occur particularly in tendon sheaths and tendons, leading to "locking", attrition or rupture of the tendon.

One of the early changes observed in this disease is swelling of the interphalangeal joints and wrist. Pain on motion and muscular spasm soon lead to flexion deformity. Although a deformity may remain unchanged for years, an increase in it usually follows each exacerbation of the disease. Fixed changes with articular distortion, ankylosis and contractures appear at the affected joints. The transverse and longitudinal arches of the hand disappear, the hand becoming flat, the thumb losing its ability to oppose the fingers. Soft tissue alterations in and around the wrist are followed by dorsal dislocation of the ulna and bony overgrowth on the carpal bones.

The following table summarizes the *common hand deformities* found in the arthritic patient. Surgical procedures for their correction are briefly noted.

DEFORMITY	PROCEDURE RECOMMENDED	RESULT
1. Flexion of wrist	arthrodesis (the stiffening of a joint by operative means.)	usually good
2. Contracture of finger	capsulotomy	improved in 50%
3. Ankylosis of finger	fusion in flexion	usually good
4. Ulnar deviation of fingers with subluxation of phalanx	resection of joint. Radical shift of extensor tendon.	good cosmetically, function improved in 40%.
5. Adduction of thumb	fusion in abduction	usually good
6. Dupuytren's contracture	section of palmar fascia	good in 75%
7. Stenosis of tendon sheath	opening of tendon sheath	usually good
8. Fraying or rupture of tendons	tendon repair	good in 65%
9. Rheumatoid tenosynovitis	excision of granuloma. Repair of diseased tendon.	temporarily improved; tends to recurr.

Fig. 6 — MUSCULAR DYSTROPHY OF THE FACIO-SCAPULO-HUMERAL TYPE.

Muscular dystrophies — myopathies — *per se* include a group of disorders of unknown etiology characterized by progressive degeneration of muscle groups without involvment of the nervous system. The wasting and weakness is symmetrical, there is no sensory loss or fasciculation, and tendon reflexes are preserved until a late stage is reached.

Three major groupings of myopathies can be distinguished.

1. *Pseudo-hypertrophic type* (Duchenne type). Occurring almost exclusively in males, this type is transmitted by a sex-linked recessive

gene. The disease usually presents itself within the first three years of life, beginning in the pelvic girdle and lower limbs, later spreading to the shoulder girdle. Over three-quarters of the cases show initially a pseudohypertrophy involving calf muscles, quadriceps, lutei, detoids, and infraspinati. Despite their increased size and firmness, the affected muscles are weak and this weakness gives rise to the characteristic waddling gait and to the characteristic manner in which the child rising from a supine posture rolls on to his face and, using his arms, pushes himself up. Death usually comes in the second decade and is due to inanition or respiratory infection.

2. *Limb-girdle type* (juvenile scapulo-humeral type of Erb). Inherited as a recessive gene, this type affects both males and females in the second or third decade. It starts in either the shoulder or pelvic girdle and eventually spreads to involve both. Severe disablement usually occurs within 20 years.
3. *Facio-scapulo-humeral type* (Landouzy-Dejerine type). Unlike the first two types, this one is inherited as a dominant gene affecting either sex at any age. It starts in the facial muscles, spreads to the shoulder girdle and may eventually involve the pelvic girdle. This slowly progressive disease is compatible with a long life.

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Canada. Department of National Health and Welfare.: A hospital evacuation plan. 1960.

Code, C.F.: An atlas of esophageal motility in health and disease. 1958.

Conference on Cold injury. Transactions. 6th (1958).

Coërs, C.: The innervation of muscles. 1959.

Cope, Z.: Sidelights on the history of medicine. 1957

Copeland, D. McK.: Remember, nurse.

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Crothers, B.: The natural history of cerebral palsy. 1956.

Cumings, J.N.: Heavy metals and the brain. 1959.

Dandy, W.E.: Selected writings. 1957.

Dawkins, M.J.R.: A biochemical approach to pathology. 1959.

Donovan, G.E.: Medical electronics. 1953.

Johnson, F.H. (ed).: Influence of temperature on biological systems. 1956.

Karpovich, E.A.: Russian-English biological and medical dictionary. 1st ed. 1958.

Kropp, B.N.: Laboratory guide for histology-embryology. 1959.

Lin, K'o-Shêng: A sterotiaxic atlas of the dog's brain. 1960.

Mallette, Manney F.: Biochemistry of plants and animals. 1960.

Marx, H.: "H_3" in the battle against old age. 1960.

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Orban, B.J.: Atlas of clinical pathology of the oral mucous membrane. 2nd. ed. 1960.

Patten, B.M.: Foundations of embryology. 1958.

Paterson, J.R.K.: The treatment of malignant disease by radium and x-rays. 1956.

Polson, C.J.: Clinical toxicology. 1959.

Prigge, R.: Fundamentals and possibilities in anti-tuberculosis vaccination. 1960.

Rogers, I.H.: The complete cookery book for diabetics. 2d ed. 1959.

Rules for the preparation of manuscripts and bibliographies. 1958.

Smith, E.L.: Vitamin B_{12}. 1960.

Smith, Sir S.A.: Mostly murder. 1960.

Symposium on Cerebral Lipidoses, Antwerp, 1955.: Cerebral lipidoses. 1957.

Symposium on the Physiopathology of the reticulo-endothelial system, Paris, 1955.

Symposium on the Physiopathology of the reticulo-endothelial system, 1957.

Traumatic medicine and surgery for the attorney. Volume 1. 1959.

Traumatic medicine and surgery for the attorney. Volume 2. 1960.

Wylie, W.D.: A practice of anaesthesia. 1960.

Symposium on Interdisciplinary Research. University of Wisconsin, 1955. Biological and biochemical bases of behaviour, ed. by Harry F. Harlow and Clinton N. Woolsey. 1958.

ABSTRACT: Effects of Chemotherapeutic Agents on Wounds Contaminated with Tumor Cells; *I. Hatiboglu, G.E. Moore, H.J. Wilkens, and F. Hoffmeister:* Annals of Surgery, Vol. 152, Oct. 1960, pp. 559-67.

Because implantation of tumor cells into surgical wounds may be followed by local recurrence of the tumor, the use of chemotherapeutic agents for prophylactic wound irrigation is a subject of widespread interest. Carcinostatic effects of various agents on tumor cells inoculated into experimental wounds were studied and the local toxicities measured by their deleterious effects on wound healing. The "carcinostatic impairment of wound healing ratio" was found to decrease in the following order — nitrogen mustard, sodium hypochlorite (Dakin's solution), acriflavine, Clorpactin XCB, Atabrine, actinomycin D, triethylenethiophosphoramide (TSPA), and Rivanol. As yet these compounds are of limited clinical value.

ABSTRACT: The Treatment of Postoperative Pulmonary Atelectasis with Intermittent Positive Pressure Breathing; *A. Becker, S. Barak, E. Braun and M.P. Meyers:* Surgery, Gynaecology & Obstetrics, Vol. 3, Oct. 1960, pp. 517-22.

Intermittent positive pressure breathing (IPPB), in addition to its value in chronic bronchitis with emphysema, bronchial asthma, and bronchiectasis is currently being tried in postoperative pulmonary atelectasis. IPPB plus bronchodilators and detergents were studied in a controlled series of 100 patients after upper abdominal surgery (i.e.: where intercostal and diaphragmatic splinting allow bronchial obstruction by secretions). Atelectasis occurred in 51 cases, comprising 3 lobar, 14 segmental, and 34 platelike radiologic types. IPPB did not prevent the occurrence or accelerate the clearance of postoperative atelectasis in previously healthy patients, and it is felt that IPPB is indicated pre- and postoperatively only in patients with pre-existing chronic bronchial disease.

ABSTRACT: Detection of Tumours in Man by the Skin Testing of Polysaccharide Antibody Complexes; *J.G. Makari:* Journal of the American Geriatrics Society Sept. 1960.

A tumour skin test is described which is based on the detection of an autohypersensitivity to the subject's own antibodies when these are allowed to form complexes with tumour polysaccharides. Among patients with carcinoma results were negative in 3%, equivocal in 11%, and positive in 86%. In the case of tumours other than carcinoma, results were positive in 83%, equivocal in 17%, and negative in 0%. Results tended to be more accurate with patients in the early stages of their disease.

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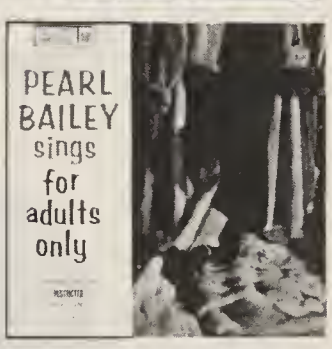

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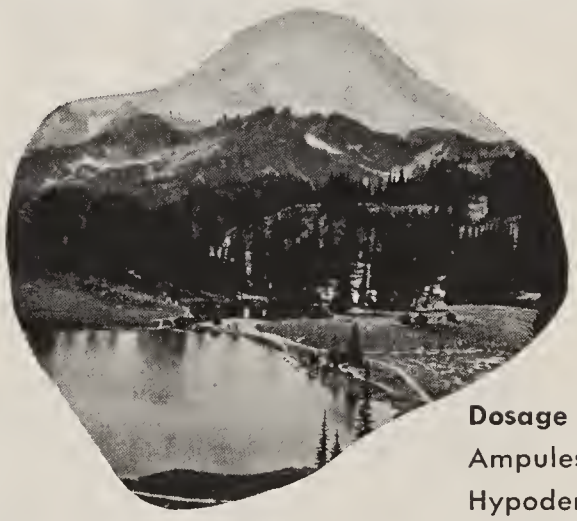

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